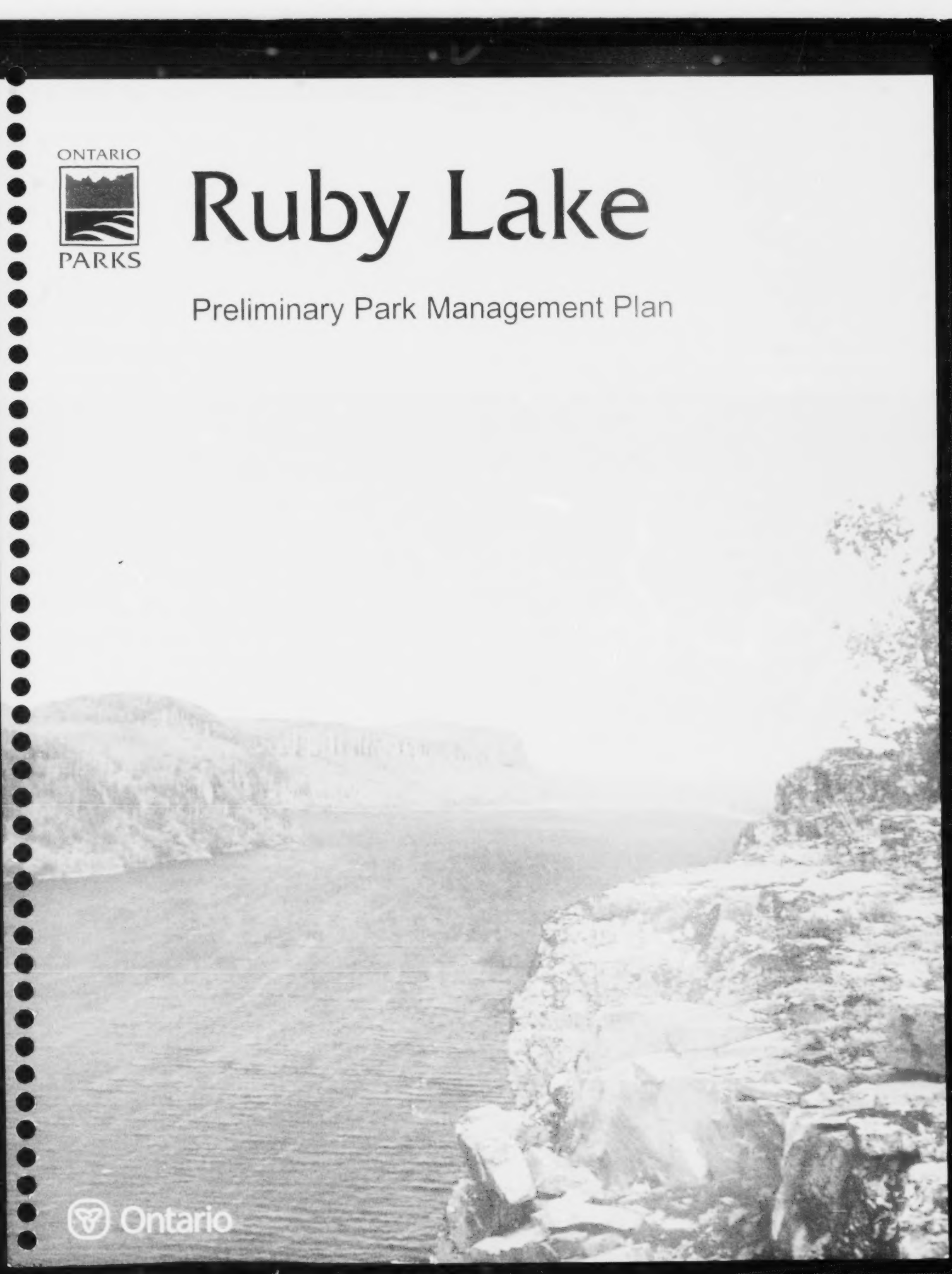
ONTARIO PARKS

Ruby Lake

Preliminary Park Management Plan



Ontario

©2004, Queen's Printer for Ontario
Printed in Ontario, Canada

Additional copies of this publication are available from the Ministry of Natural Resources at the following location:

Ruby Lake Provincial Park
c/o Ontario Parks
Northwest Zone
Suite 221d 435 James St. S.
Thunder Bay, Ontario
P7E 6S8
(807) 475-1231

51852
0.5k P.R. 01 04 04
ISBN – 0-7794-5903-2

104-05829/

ONTARIO PARKS

January 2004

Dear Sir/ Madam:

Ontario Parks is preparing a park management plan for Ruby Lake Provincial Park. As part of the planning process, I am pleased to present the **Ruby Lake Preliminary Park Management Plan.**

This preliminary plan contains the proposed policies that will direct the long-term management of Ruby Lake Provincial Park. It presents the park's classification, goal, objectives, and zoning, as well as the resource management, operations, development and implementation priorities. The public consultation that has occurred to date is also summarized.

I invite you to review and comment on this document. All comments will become part of the public record for the duration of the planning process. Comments will be made available for public review upon request, unless privacy is requested, pursuant to the *Freedom of Information and Protection of Privacy Act*. If you require that your name not be made public, please indicate this in your response. Remarks or requests for additional information should be submitted to the attention of:

Michèle Proulx, Park Management Planner
Northwest Zone, Ontario Parks
Ministry of Natural Resources
435 James Street South, Suite 221d
Thunder Bay, Ontario. P7E 6S8
Telephone: (807) 475-1477
Facsimile: (807) 475-1499
E-mail: michele.proulx@mnr.gov.on.ca

Your comments will be carefully considered during the preparation of the Ruby Lake Park Management Plan.

Yours truly,

A. Ireland-Smith

Adair Ireland-Smith
Managing Director
Ontario Parks

Table of Contents

Statement of Environmental Values and the Environmental Bill of Rights			3
1.0	**Introduction**		3
2.0	**Summary of Significant Issues**		4
3.0	**Park Classification**		5
4.0	**Goal**		5
5.0	**Objectives**		5
	5.1 Protection Objective		5
	5.2 Heritage Appreciation Objective		8
	5.3 Tourism Objective		8
	5.4 Recreation Objective		9
6.0	**Park Boundary**		9
7.0	**Park Zoning**		10
	7.1 Nature Reserve Zones		10
	7.2 Natural Environment Zones		12
	7.3 Access Zones		13
8.0	**Resource Stewardship Policies**		13
	8.1 Natural Resources		13
	8.2 Cultural Resources		15
9.0	**Operational Policies**		15
	9.1 Natural Heritage Education		15
	9.2 Recreation Management		16
	9.3 Tourism Services		18
	9.4 Marketing		19
	9.5 Research		19
10.0	**Development Policies**		19
	10.1 Access and Circulation		20
	10.2 Day-use Area		20
	10.3 Trails		20
	10.4 Utilities		20
	10.5 Recreation and Tourism Services		20
	10.8 Interpretive Facilities		20
	10.7 Park Maintenance and Operation		20
11.0	**Plan Implementation and Review**		20
	11.1 Resource Stewardship		20
	11.2 Development		21
	11.3 Operations/Administration		21
	11.4 Project Screening		21
12.0	**Social and Economic Impact Analysis**		21
	12.1 Benefits of Provincial Parks		21
	12.2 Economic Impacts		21
13.0	**Plan Review and Amendment**		22
14.0	**Summary of Public Consultation**		22
15.0	**References**		23
	Appendix B	**Social and Economic Analysis Notes and Definitions**	29

Tables and Figures

Figure 1	Regional Setting		4
Figure 2	Adjacent Land Use		11
Figure 3	Proposed Park Zoning		30
Figure 4	Existing and Proposed Development		31
Table 1	Policy Report Ruby Lake Provincial Park	Appendix A	26
Table 2	Policy Report Ruby Lake Forest Reserve	Appendix A	28

Statement of Environmental Values and the Environmental Bill of Rights

In accordance with the provisions of the *Environmental Bill of Rights*, the Ministry of Natural Resources prepared a *Statement of Environmental Values*. It describes how the purposes of the *Environmental Bill of Rights* are to be considered whenever decisions are made which might significantly affect the environment. This includes decisions made as a result of the park management planning process.

The primary purpose of the Environmental Bill of Rights is "to protect, conserve and, wherever reasonable, restore the integrity of the environment." From the Ministry's perspective, that broad statement of purpose translates into four objectives in its *Statement of Environmental Values*:

- To ensure the long-term health of ecosystems by protecting and conserving our valuable soil, aquatic resources, forest and wildlife resources as well as their biological foundations;
- To ensure the continuing availability of natural resources for the long-term benefit of the people of Ontario;
- To protect natural heritage and biological features of provincial significance; and,
- To protect human life, the resource base and the physical property from the threats of forest fires, floods and erosion.

The Ministry's *Statement of Environmental Values* has been considered in the development of this preliminary park management plan for Ruby Lake Provincial Park.

4.0 INTRODUCTION

Ruby Lake Provincial Park was identified in 1999 as part of Ontario's Living Legacy (OLL) and is part of the OLL Great Lakes Heritage Coast Signature Site. The park was regulated in May 2002 (O. Reg. 147/02). The classification is natural environment. Ruby Lake is also located adjacent to Parks Canada's National Marine Conservation Area. The park covers a total of 2,734 hectares and is situated on the north shore of Lake Superior, at the mouth of the Nipigon River near the towns of Nipigon and Red Rock, and the Red Rock First Nation. (Figure 1).

Nipigon and Red Rock both have the centre of their settlements at approximately 2.5 km (straight-line distance) from the western boundary of the park. The Red Rock First Nation (Reserve #53), and the Lake Helen First Nation Reserve (Reserve # 53A), are located at 8 km, and 2.5 km (straight-line distance) away respectively. Ruby Lake Provincial Park encompasses traditional use area for this First Nation.

Ruby Lake Provincial Park incorporates a mesa-cuesta named Doghead Mountain with cliffs and ravines that provide important bald eagle, and peregrine falcon habitat, both of which are species at risk in Ontario[1], as well as three small lakes and other wetlands. The rugged terrain and extensive trail system offer park visitors opportunities for day-use that include hiking, scenic and wildlife viewing and nature interpretation. Access to the park may also be gained from Lake Superior by boaters and sea kayakers. Winter activities include cross-country skiing and snowshoeing. Park users are drawn from nearby communities and from Thunder Bay.

Ruby Lake Provincial Park is within the boundaries of lands covered under the Robinson-Superior 1850 Treaty. In recognition of the park's location within the traditional use area for the Red Rock First Nation Ontario Parks will have special regard for the First Nations' particular interests. The Red Rock First Nation will be consulted on related issues of concern during the implementation of this plan.

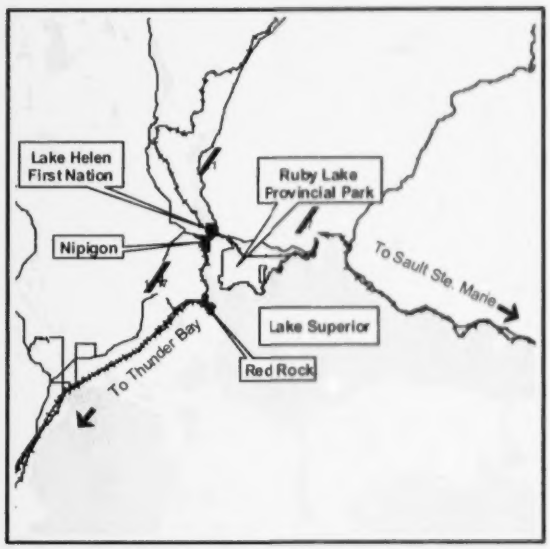
Nothing in this document shall be construed so as to derogate from, or abrogate from any Aboriginal, treaty, constitutional or any other First Nation rights, powers or privileges of the Province of Ontario. Nothing in this document shall be construed as an acknowledgement of any rights asserted or any claim asserted by First Nations.

The Interim Management Statement for Ruby Lake Provincial Park was approved in 2000. It described the park's contribution to the provincial park system, and identified existing policies intended to maintain this contribution. This document provided some of the background information for the present planning process. The preliminary park management plan has evolved from the comments received from the public review of the

- Invitation to Participate and to Inspect the Approved Terms of Reference which was released July 18, 2001 for a 45-day comment period, and the
- Opportunity to Review the *Background Information*, and the *Issues and Options* which was released on August 1, 2002, with a 45-day comment period.

[1] OMNR designates bald eagle (*Haliaeetus leucocephalus)* as endangered, and the peregrine falcon (*Falco peregrinus)* as endangered as of 01-Mar-00.

Figure 1: Regional Setting



2.0 SUMMARY OF SIGNIFICANT ISSUES (not ranked)

Park users, local residents, park staff, as well as groups such as the Thunder Bay Field Naturalists, the Partnership for Public Lands, the Sierra Club, Earthroots, and the Ontario Federation of Anglers and Hunters, identified the following concerns related to the management of Ruby Lake. Each of these issues is addressed in specific section of the document, as indicated by the bracketed references.

- **Sport hunting as a permitted use**. There were 21 comments received. Seven expressed support for hunting throughout the park; 9 did not support sport hunting as a permitted activity; 4 expressed support for hunting only in the eastern part of the park; and one expressed concern regarding impacts on First Nations hunting activities. (Section 8.1.5).
- **Mountain biking, rock/ice climbing, scrambling, hike-in camping as permitted uses**. Fourteen comments were received. Most supported prohibiting mountain bikes (5), rock/ice climbing (6), scrambling (4), and hike-in camping (2). (Sections 7.0, 8.1, and 9.2).
- **ATVs and snowmobiles, and motorized watercraft on Ruby and Ivan lakes as permitted uses**. Comments regarding ATVs and motorized watercraft were split between opposition and support (1/1). Three comments addressed snowmachines. (Sections 7.0, 8.1, and 9.2).
- **Issue of the appropriate level of access and access zoning**. Twenty-six comments were received. Eight comments expressed support for development of the eastern access zone (A2) only, and 8 comments expressed support for not developing the western access zone (A1). Three comments expressed support for the development of both A1 and A2. Two comments expressed support for developing A1 only, and not developing A2. (Sections 7.3, 10.1, 10.2 and 11.2).
- **Issue of appropriate zoning for the park**. Fourteen comments were received that addressed Natural Environment zoning: NE1 and/or NE2. Five comments supported NE1 (Option A) to permit hunting throughout the entire park. Eight comments supported NE2 (Option B) to limit hunting to the eastern part of the park and three of these comments included the suggestion of slight expansion to the size of the NE2 zone. Three comments were received that expressed support for Nature Reserve zoning to protect sensitive features. (Sections 7.1, 7.2, and 7.3).
- **Issue of the appropriate level of development**. Twenty-six comments were received. Ten comments expressed support for minimal development in the park including leaving the trail system as is. Seven comments expressed support for limited trail rationalization including two suggestions for the creation of loop trails between the east and west sides of the park. Thirteen comments expressed support for the improvement of park signage and the development of a park map. Other suggestions for development included establishing parking (3), privies, (1) and safety fencing (1). (Sections 9.2.2, 10.1, 10.2, 10.3, and 11.2).
- **Issue of the greater ecosystem**. Twelve comments addressed the Ruby Lake Marble quarry. Five comments expressed opposition to the existence of the quarry within the park. Three comments requested that the intent to incorporate the forest reserve into the park if/when the claims lapse, be stated clearly. One comment requested more information regarding the tenure, area, and conditions of the quarry permit. One comment requested that the legal status of the quarry and the commitment made to ensure access to the quarry, be stated clearly. (Sections 6.0, 9.2.6, and 10.1).
- **Issue of the greater ecosystem**. Three comments were received regarding the adjacent Thunder Bay Field Naturalists' Nature Reserve. (Sections 6.0, and 9.2.6).
- **Issue of the greater ecosystem**. Recognition of the relationship between Ruby Lake and the Great

Lakes Heritage Coast Signature Site (Sections 9.1, 9.2.5, 9.3, 9.4, and 11.4).

- **Issue of the greater ecosystem**. Recognition of the relationship between Ruby Lake and the National Marine Conservation Area (Sections 9.1, 9.2.5, 9.3, 9.4, and 11.4).
- **Issues of partnership operation of the park**. Red Rock First Nation expressed interest concerning partnership / stewardship agreements for park maintenance / operations (Sections 9.1, and 11.3).

3.0 PARK CLASSIFICATION

All provincial parks in Ontario fall into one of six classes: w*ilderness, nature reserve, historical, natural environment, waterway and recreation.* Natural environment parks incorporate "outstanding recreational landscapes with representative natural features and historical resources to provide high quality recreational and educational experiences" (Ontario Provincial Parks: Planning and Management Policies, 1992).

Ruby Lake Provincial Park is classified as a natural environment park. Ruby Lake Provincial Park fulfills the representation target for natural environment class parks in Ecoregion/district 3W-3. The natural environment status reflects the park's provincially and regionally significant natural features, as well as its regional historical legacy and recreational values.

4.0 GOAL

To protect the outstanding landscape and provincially and regionally significant natural and cultural features of Ruby Lake Provincial Park and to provide opportunities for compatible heritage appreciation, recreation, and tourism activities within the scenic landscape of the north shore of Lake Superior.

5.0 OBJECTIVES

Ontario's provincial park system has four objectives: protection, recreation, heritage appreciation, and tourism. Each park in the system contributes in some way to one or more of these objectives, depending on its resource base. Ruby Lake Provincial Park contributes to the achievement of all four objectives.

5.1 Protection Objective

To protect the provincially and regionally significant natural and cultural features of the park including, geological and geomorphological features, raptor habitat, arctic - alpine disjuncts and other rare plants.

Ruby Lake Provincial Park contains a variety of natural and cultural resources that are provincially and regionally significant. These include:

- The Keweenawan diabase sills, whose tabular form has resulted in the distinct mesa-cuesta landforms that characterize the physiography of this corner of the province;
- A complete spectrum of lake levels to have affected the area following the retreat of the Marquette ice,
- Basic Open Cliff and Basic Open Talus vegetation types;
- Crevasses, talus, and cliffs bathed in cold air, as well as the cool shoreline of Lake Superior that provide habitat for alpine-arctic disjuncts
- Areas of lime rich soils provide habitat for orchids and other rare plants.
- Several satellite camps of Kallio's logging camp.

The protection objective will be accomplished through appropriate park zoning, resource management policies (land use controls), research, monitoring, and a greater ecosystem approach to park planning and management. The greater ecosystem is defined as the area of influence surrounding the park from an ecological, social and economic perspective. It is the area where most of the cross-boundary impacts affecting the park and the surrounding area will occur, and vice versa (Figure 2).

5.1.1 Earth Science

Ruby Lake Provincial Park lies within the Canadian Shield, in a vast area of ancient rock of Precambrian origin. The Shield forms the foundation of the North American continent and consists of some of the oldest rock on earth. It is divided into geological provinces and sub-provinces based on differences in rock type, structure and age. The park lies within the Southern Structural Province in an area formerly known as the Nipigon Plate (Stockwell et al, 1972) but now referred to as the Nipigon Embayment (Sutcliffe, 1991). The Nipigon Embayment consists of a sequence of Mesoproterozoic, pre-Keweenawan sedimentary rocks of the Sibley Group (quartz arenite, argillaceous dolomite and mudstones) that formed about 1.3 billion years ago, and the Keweenawan Nipigon diabase sills that were intruded into the Sibley sequence about 1.1 billion years ago. These rocks, which overlie the older Achaean Superior Province basement complex, extend

north from Lake Superior to subtend an area roughly coincident with the Lake Nipigon basin.

The Keweenawan diabase intrusive sills dominate the landscape in this area. Diabase, a very dark, basic, igneous rock was intruded as magma parallel to the bedding planes of the Sibley sediments. Differential erosion (the diabase is more resistant to erosion than the sediments) has resulted in tabular or sheet-like forms (sills) that cap the softer sediments and now stand out as isolated flat-topped mesas or southward-dipping cuestas. Structures within the diabase determine the spatial form of these features. Prominent joint sets (fractures) develop perpendicular to the plane of injection due to contraction within the cooling magma. Erosional processes (e.g., freeze-thaw) work on these zones of weakness (i.e., the columnar jointing) which results in the vertical cliffs (escarpments) that characterize the mesas and cuestas. The eroded materials collect as boulder-sized colluvial talus at the base of the cliffs (Noble 2000).

A high, isolated diabase sill dominates Ruby Lake Provincial Park. Although similar features in the area take on an almost flat-topped mesa configuration, the Ruby Lake landform can be placed in the "cuesta" category given its south-dipping backslope. Cuestas are described as a "ridge with a gentle slope on one side, and a precipitous escarpment on the other" (Pye, 1969). The cuesta is divided into two parts by a wide erosional lineament now occupied by Ruby Lake. The cuesta consists of a vertical escarpment on its north and west sides. The latter cliff face, which is just beyond the west boundary of the park, serves as the east bank of the Nipigon River. Abutting the cliff is an apron of steeply sloping boulder talus. The highest point along the escarpment rim is Doghead Mountain (374 metres above sea level (asl)). In comparison with other cuesta backslopes, this one has an unusually steep gradient. The backslope consists, for the most part, of wave-washed bedrock, particularly in the section west of Ruby Lake.

The last ice advance to override Ruby Lake Provincial Park was the Marquette Advance, which occurred roughly 10,000 years ago. The park was uncovered after the ice retreated across the lake to beyond the north shore. Glacial Lake Minong followed the ice back and ultimately filled the Lake Superior basin (Farrand 1960; Farrand and Drexler 1985). Following retreat of the ice from the north shore there was a succession of lowering lake levels in the Superior basin, including several significant fluctuations as glacial Lake Agassiz drained eastward, one rising level (i.e., the Nipissing Transgression), and then continued lowering levels down to the present Lake Superior (Noble 2000).

The highest points in the park were first exposed in the Pre-Minong glacial lake levels (before the Marquette ice had completely evacuated the basin), as is evidenced by a sporadic veneer of water-worked till and sand and gravel beach materials, particularly on the backslope east of Ruby Lake. From the Nipissing bluff down to the Algoma shore the amount of unconsolidated materials increases to where it is almost continuous albeit shallow. From the Algoma level to the shore the unconsolidated material is deeper and consists of lacustrine clays and low strands of beach sand and gravels. This sloping apron of lacustrine materials, which reflects bedrock control, extends as a band along the south shore backing the cuesta. Near Ruby Creek, however, it swings in front of the cuesta escarpment where it forms a low gradient lacustrine lakebed that was protected from storm impact by the cuesta itself. This relatively flat plain is drained by the somewhat meandering and slightly incised Ruby Creek. The low gradient, high water table and clay substrate in this area have been conducive to a build-up of peat, which, in places, is as much as a metre deep. The combination of peat over clay continues to the northern boundary of the park and stretches around the edge of Fire Hill Bay to the eastern extremity of the park at the mouth of the Jackfish River.

The earth science features of Ruby Lake Provincial Park are of interpretive and educational significance. Earth science values are protected within nature reserve and natural environment zones.

5.1.2 Life Science

Ruby Lake Provincial Park is situated in Ecodistrict 3W-3 (Black Sturgeon). Ruby Lake is also located within the Superior section of Rowe (1972) and the Black Sturgeon Site District of Hills (1959). Forest soils are largely dictated by the impacts of glaciation, wave action of glacial lakes, and water drainage from the landscape.

Exposed bedrock occurs in upland areas along cliff edges where climatic conditions are not conducive to tree growth. Tree growth in these areas is stunted with eastern white cedar, white birch, white spruce, black spruce and trembling aspen present in low abundance.

The diabase cliffs and talus slopes of the Doghead Mountain cuesta form a rare type of open habitat in a forested area, with sparse vegetation dominated by shrubs, mosses and lichens. The diabase cliffs also provide a relatively nutrient rich substrate. These

conditions combine to form rare to uncommon vegetation types in Ontario: Basic Open Cliff Type and Basic Open Talus Type (Bakowsky 2002). Ice filled crevasses occur among the exposed bedrock at the base of some cliffs. Plants of arctic/alpine affinity have a normal range that includes alpine habitat in British Columbia, the Yukon Territory, and the state of Alaska (Pratt 1991), or arctic habitat like that found 63° north to Hudson Bay and James Bay (Johnson 1987). Occurrence of these species in the area is significant due to the distance of these plants from their normal range. Ruby Lake Provincial Park is one of a number of significant sites for arctic/alpine disjunct plants on the north shore of Lake Superior.

Upland conifer forests occur on the top of Doghead Mountain in the western section of the park. Dominant tree species include jack pine and black spruce. West of Ruby Lake, these stands are the result of a natural fire, but in the area southeast of Ruby Lake, trees have been planted in recently harvested areas.

Upland deciduous forest covers a large portion of Doghead Mountain, surrounds most of McLennan Lake, and occupies several other patches, primarily in the western section of the park. Trembling aspen is the dominant tree species, however, white birch also occurs. Balsam fir is consistently present in the regeneration layer along with white birch, black spruce, and white spruce.

Birch dominated forest occurs on slopes and other areas of moderate elevation within the park. This forest type surrounds Kallio's Pond, the southern slopes of Ruby Creek, and other patches in the western portion of the park. The dominant tree species is white birch, however, balsam fir and trembling aspen also occur. Eastern white cedar occurs where water tables are high, or next to intermittent streams.

Black Spruce Lowlands occur on the glaciolacustrine flats in the eastern section and on low-lying areas in the southwestern portion of the park. Black spruce is the dominant canopy tree species with white birch, balsam fir, and eastern white cedar occurring occasionally in the canopy and regeneration layer.

Cedar forest with some white birch, white spruce, and willow occurs west of the forest reserve, and in the lowlands starting east of Fire Hill Creek and running toward the Jackfish River along the Lake Superior coastline.

Brush and alder wetlands occur around the beaver pond in the southwestern portion of the park, adjacent to the Ruby Creek junction, in patches along the railway, and along the Lake Superior shoreline in the eastern part of the park. Treed muskeg occurs just west of the beaver meadow area, north of the long grass-strip in the middle section of the park. Open wetland meadows occur in and around sections along the edges of Ruby Lake, Ivan Lake, Kallio's Pond, along the most western portion of Ruby Creek, and at the old beaver pond meadows.

The inland lakes of Ruby Lake Provincial Park are Ruby Lake, Ivan Lake, McLennan Lake, and Kallio's Pond. Ivan Lake is the result of a permanent beaver dam at the south end of the waterbody, where it runs into Ruby Lake by way of a short stream. There is an extensive cattail and sedge/grass wetland along the shores of Ivan Lake with a narrow stretch of open water down the centre and numerous small ponds around the edges. The area is rich in wildlife, with songbirds and waterfowl, including nesting loons. Both Ruby Lake and McLennan Lake are identified as aquatic feeding areas. Kallio's Pond is a small water body situated in the northwestern section of the park.

The wildlife of Ruby Lake Provincial Park is representative of the Boreal Forest Region. Mammals include: moose, white-tailed deer, black bear, timber wolf, lynx, marten, red fox, snowshoe hare, river otter, beaver, red squirrel, least chipmunk and northern flying squirrel.

More than sixty species of birds have been observed in Ruby Lake Provincial Park area (Bryan & Moore, Bryan 1998, Hutchinson 2001). A number of species nest in the area, including bald eagle, osprey and red tailed hawk. Peregrine falcons were released on the east shore of Ruby Lake in the early 1990s; cliffs along the northeast shore were used as hacking sites. Falcons are not known to nest within the park boundaries, although these cliffs are considered suitable habitat. The provincially significant American white pelican (*Pelecanus erythrorhynchos*) has also been observed flying over the park and is known to forage in Ruby Lake (Ratcliff 2000). The American white pelican is also a regulated endangered species in Ontario and is protected under *Ontario's Endangered Species Act*. Other avifauna include: ruffed grouse and spruce grouse, ravens, jays and crows, hairy and downy woodpeckers, titmice, nuthatches, creepers, wrens, waxwings, vireos, wood warblers, grosbeaks, finches, buntings, thrushes, and sparrows.

The eastern garter snake is the only reptile to be found in the park. Amphibians include the leopard frog, boreal chorus frog, spring peepers and the American toad. All can be heard calling in the spring and early summer.

Ruby Lake Provincial Park contains Ruby Lake, McLennan Lake and Ivan Lake. Sport fishing for pike and perch occurs on Ruby Lake. Since a stream connects Ivan Lake to Ruby Lake, it likely holds a similar species component as Ruby Lake. The sport fish species present in McLennan Lake have not yet been assessed. Ruby Creek contains brook trout, brook stickleback, mottled sculpin, and slimy sculpin. Rainbow trout and pickerel have also been found in one of Ruby Creek's tributaries (MNR 1998).

Life science values are protected within nature reserve and natural environment zones.

5.1.3 Cultural Features

As the glaciers retreated, Aboriginal people moved into the Ruby Lake area in small nomadic groups who gathered, hunted and fished, occupying different seasonal habitation sites. The archeological record to date for the Nipigon area indicates habitation that dates back 4000 years to the late Archaic period and the Shield culture with copper tools. Although no archeological sites have been identified within Ruby Lake Provincial Park, the pictographs located just outside of the park boundary (at the mouth of the Nipigon River/Cooks Point), and the legend regarding Doghead Mountain attest to the presence of Aboriginal people in this area.

The French initiated fur trade in the region in 1656 when a commission which covered lands from *the Gulf of St. Lawrence to lac des Alepinigons* (Lake Nipigon) was granted to Sieur Zacharie Dupuy by the Governor of New France, Jean de Lauzon. Missionaries began entering this area in 1667 when Father Claude Jean Allouez arrived to minister to a band of Nipissing Indians. Trading forts and supply centres were established starting in 1679, including Hudson Bay Company Red Rock House at the mouth of the Nipigon River in 1821. As the fur trade became established, the Ojibway people expanded their activities to include hunting and trapping for trade purposes. After British conquest, in the late 1700s, a large influx of traders entered the district. By 1871, when Canadian Pacific Railway surveyors arrived, there was a full-fledged town and harbour to be mapped.

Construction of the Canadian Pacific Railway adjacent to what is now Ruby Lake Provincial Park would have required building of the railway bed (likely with gravel supplies found nearby), construction of railway ties (likely from the nearby forest), and development of the temporary, yet substantial, camps needed to support railway workers. Railway construction would have impacted the area through extraction of some aggregate, timber, water, food and dwelling related resources. Evidence of railway building activity is still present in the park both in the form of the railway itself, and a railway bank support wall immediately east of Ruby Lake.

A marble quarry operated between 1885 and 1910 close to the park's western boundary. Evidence of past logging exists in various parts of the park. The remains of a Kallio's satellite logging camp, circa 1940 are located on the shores of McLennan Lake. A fire swept through the camp and renewed much of the area to a trembling aspen and white birch dominated primary successional stage of forest. Evidence of more recent logging activities include the roads and cut patches still evident to the east and south of Ruby Lake that can be seen on aerial photographs of the area.

Cultural features are protected within natural environment zones.

5.2 Heritage Appreciation Objective

To provide unstructured individual opportunities for exploration and appreciation of the natural and cultural heritage of Ruby Lake Provincial Park, including early inhabitants, the fur trade, and industrial heritage, as well as the earth and life science features of the park.

Self-use facilities such as trails and displays allow users to experience the dramatic landscape of the north shore of Lake Superior. The park's variable terrain provides excellent vantage points. This objective will be achieved through the provision of accurate up-to-date information to park visitors regarding the natural, cultural and recreational resources of the park using signage, park literature, trail guides and interpretive displays.

A Natural Heritage Education Plan will be developed to guide the development and distribution of park information.

5.3 Tourism Objective

To provide both Ontario residents and out-of-province visitors with opportunities to discover and to experience the unique natural and cultural features of Ruby Lake Provincial Park, through the provision of seasonal day-use facilities.

Ruby Lake Provincial Park is a recent addition to the parks system, and there has not yet been an opportunity to collect any statistical data on the patterns of recreational use. Ruby Lake has the potential to become a popular destination among local and regional

residents, with hikers in particular, as well as with tourists to the north shore of Lake Superior.

Most visitors to the well-established provincial parks in the North of Superior region originate in northwestern Ontario and in western Canada (approximately 40%), with substantial visitation from the American Midwest (about 30%), specifically Minnesota, Wisconsin and Michigan. This is in contrast to the origins of park users on a province-wide basis where the majority of park visitors originate in the eastern and central parts of the province (approximately 65%) and only about 9% of visitors come from the United States (Van Wagoner 2000).

Ruby Lake offers exceptional views and the opportunity to observe wildlife, both of which are significant in the context of current recreational trends. The relationship between the hiking trails at Ruby Lake and other recreation opportunities in the Nipigon area warrants particular consideration because these trails were rated as one of the park's most important features. The features at Ruby Lake appear to complement and build upon existing outdoor recreation in the area.

The importance of Lake Superior's north shore is gaining recognition through the Great Lakes Heritage Coast Signature Site (GLHC). The GLHC is one of nine Ontario's Living Legacy Signature Sites with a range of significant natural features and world-class tourism and recreation values that warrant special strategies. The GLHC extends 4,200 kilometres from Port Severn on Georgian Bay, including Manitoulin Cockburn and St. Joseph islands, to Pigeon River Provincial Park at the Ontario-Minnesota Border. Ruby Lake Provincial Park is one of 71 new and existing provincial parks and conservation areas along the coast.

The parks of Lake Superior's northwest shore (Rainbow Falls, Ruby Lake, Sleeping Giant, Pigeon River, and the Slate Islands, to name a few), are noted for their rugged scenery and their range of low to moderate impact outdoor recreation opportunities. These parks provide exceptional opportunities for viewing, photography, nature study, hiking, car camping and interior camping, as well as boating, sailing, and sea kayaking. In addition to incorporating spectacular segments of shoreline, these parks are also highly accessible as stopovers for travelers on the Lake Superior Circle Route via Highway 17.

Ruby Lake also abuts Parks Canada's Lake Superior National Marine Conservation Area. National Marine Conservation Areas are intended to protect the coastal marine resources of each of Canada's marine regions. These resources include the lakebed, its overlaying waters and wetlands, river estuaries, islands and coast. The tourism objective is achieved by having outstanding natural features with the high quality infrastructure that will optimize opportunities to attract and retain visitors.

5.4 Recreation Objective

To provide park visitors with opportunities for recreation such as hiking and viewing, through the provision of appropriate facilities and services.

Ruby Lake Provincial Park provides opportunities for a variety of high quality recreational uses compatible with the character of the park. The park provides day-use opportunities for viewing Ruby Lake and Nipigon Bay on Lake Superior from viewpoints along the hiking trails.

The recreation objective will be achieved through appropriate park zoning; the identification of management policies to prevent any compromise of significant natural and/or cultural heritage values; market research and monitoring; and mitigating impacts of recreational use.

6.0 PARK BOUNDARY

The Nipigon township line delineates the western boundary, except for one departure in order to include the eastern portion of Concession 1, Lot 7. The northern boundary is delineated by the centre line of the Ontario Power Generation Inc. Northwest Power Group transmission corridor, and the southern edge of the CN Railway right of way with one aberration where these lines intersect, to include all of Ivan Lake in the park. The eastern boundary abuts the west bank of the Jackfish River, and the southern boundary is the shoreline of Lake Superior (Figure 2).

Between the park's western boundary and the Nipigon River, several owners hold private land. Thunder Bay Field Naturalists own lot 8 and lot 9 Concession 1, Township of Nipigon and Con. 1 West Part Lot 10 MR7 Nipigon, and Con. 1 East part Lot 10 MR6. This area is known as the Nipigon River Mouth Nature Reserve. There are three and 1/4 lots owned privately and one Crown patent. The CPR owns the rail right of way, while the transmission corridor is held under a land use permit (LUP).

The Nipigon River Mouth Nature Reserve totals 218 hectares. The property includes wetlands, cliffs, talus, and mature second growth mixed forest. The main purpose of the Thunder Bay Field Naturalists Nature Reserve is natural heritage protection. Recreational use

is not encouraged. The Thunder Bay Field Naturalists have registered charity status (TBFN website 2003).

Ruby Lake Provincial Park is all Crown land. However, four unpatented mining claims located in the eastern part of the park north of Hughes Point are designated and managed as a forest reserve. This forest reserve is contained within the park but does not comprise part of the park. Ruby Lake Marble Ltd. holds these mining claims.

Forest reserve is a land use designation created through Ontario's Living Legacy (OLL) Land Use Strategy (LUS) where protection of natural heritage and special landscapes is a priority, but some resource use can take place with appropriate conditions. These lands will be added to the park, to improve park integrity, if a claim/lease lapses or is retired through normal processes.

The four mining claims, (TB1232451, TB1232450, TB1215267, and TB1215266) predate the designation of Ruby Lake Provincial Park through the OLL LUS, and constitute a total area of ten units or 160 hectares. In relation to the park area of 2,734 hectares, this represents about 5.8% of the park area. The four claims were recorded between June 1996 and February 1999 and the claim due dates range from February 2004 through to February 2006. To keep the claims active the Ministry of Northern Development and Mines requires that a minimum amount of assessment work is completed and filed with MNDM.

Ruby Lake Marble Ltd. is a local company that is extracting dimensional stone for landscaping purposes under Quarry Permit # 20031, issued by MNR. The quarry permit is for an area of 11.3 hectares and the actual quarry site is 3.1 hectares in size as of 2003. The quarry itself began production in 1998 and is limited to 100 tonnes or less of dimensional stone in a calendar year. The quarry has a fifty year projected life span.

MNR also has requirements related to the quarry permit for Ruby Lake Marble Ltd. that include compliance with the *Aggregate Resources Act* and *Regulations* that include:

- Maintenance of a site plan,
- Gating of the road to the pit area,
- Non-interference with travel on public roads,
- Observance of eagle and peregrine habitat management guidelines with regard to distance and timing of operations,
- Progressive rehabilitation that includes the use of stockpiled soil to recover completed portions of quarry and replanting with conifer.

There is road access to the quarry through the central portion of Ruby Lake Provincial Park. This road access is permitted in accordance with Ontario's Living Legacy Land Use Strategy. As well, maintenance of this road by the quarry operator/mining landholder to ensure continued access to the claims is permitted.

If any lands within, nearby or adjacent to the park become available for acquisition, they will be evaluated with regard to their contribution to park objectives and available funding.

No land disposition for the private use of individuals is permitted.

7.0 PARK ZONING

Zoning is a key part of a park management plan. Zones fulfill a variety of functions that include:

- Providing recognition of the features and attributes of a park;
- Delineating areas on the basis of their requirements to protect and buffer provincially significant representative features;
- Delineating areas on the basis of their ability to support various recreational activities; and
- Identifying uses that will protect significant features, yet allow opportunities for recreation and heritage education.

The three proposed zones which will guide the resource stewardship and development of Ruby Lake Provincial Park are nature reserve, natural environment, and access (Figure 3).

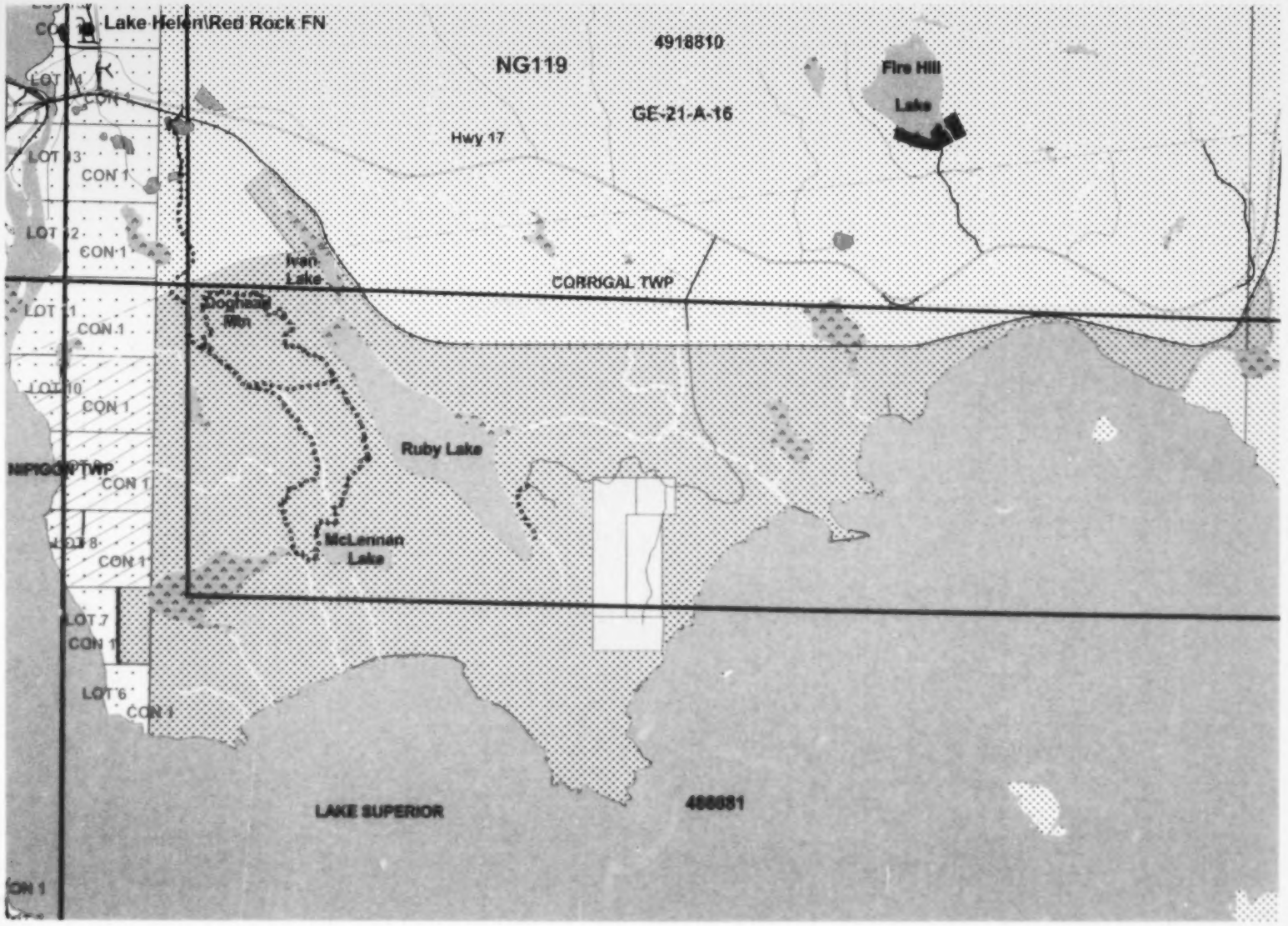
7.1 Nature Reserve Zones

Nature reserve (NR) zones include significant earth and life science features that require management distinct from that in adjacent zones as well as a protective buffer with a minimum of development. Development is limited to trails, signs and temporary facilities for research and management (Figure 3).

Proposed Nature Reserve Zone 1 (26.2 hectares)
Ruby and Ivan Lake wetlands

The proposed NR1 (Ruby and Ivan Lake wetlands nature reserve zone) includes the wetlands and aquatic feeding areas around Ruby and Ivan lakes. The purpose of this zone is to protect the plant communities and wildlife habitat associated with the shorelines of these lakes.

The nature reserve zone designation recognizes the fragility of these resources. Only scientific, educational and interpretive use is permitted in this zone.



ONTARIO PARKS

Figure 2 - Adjacent Landuse and Existing Development

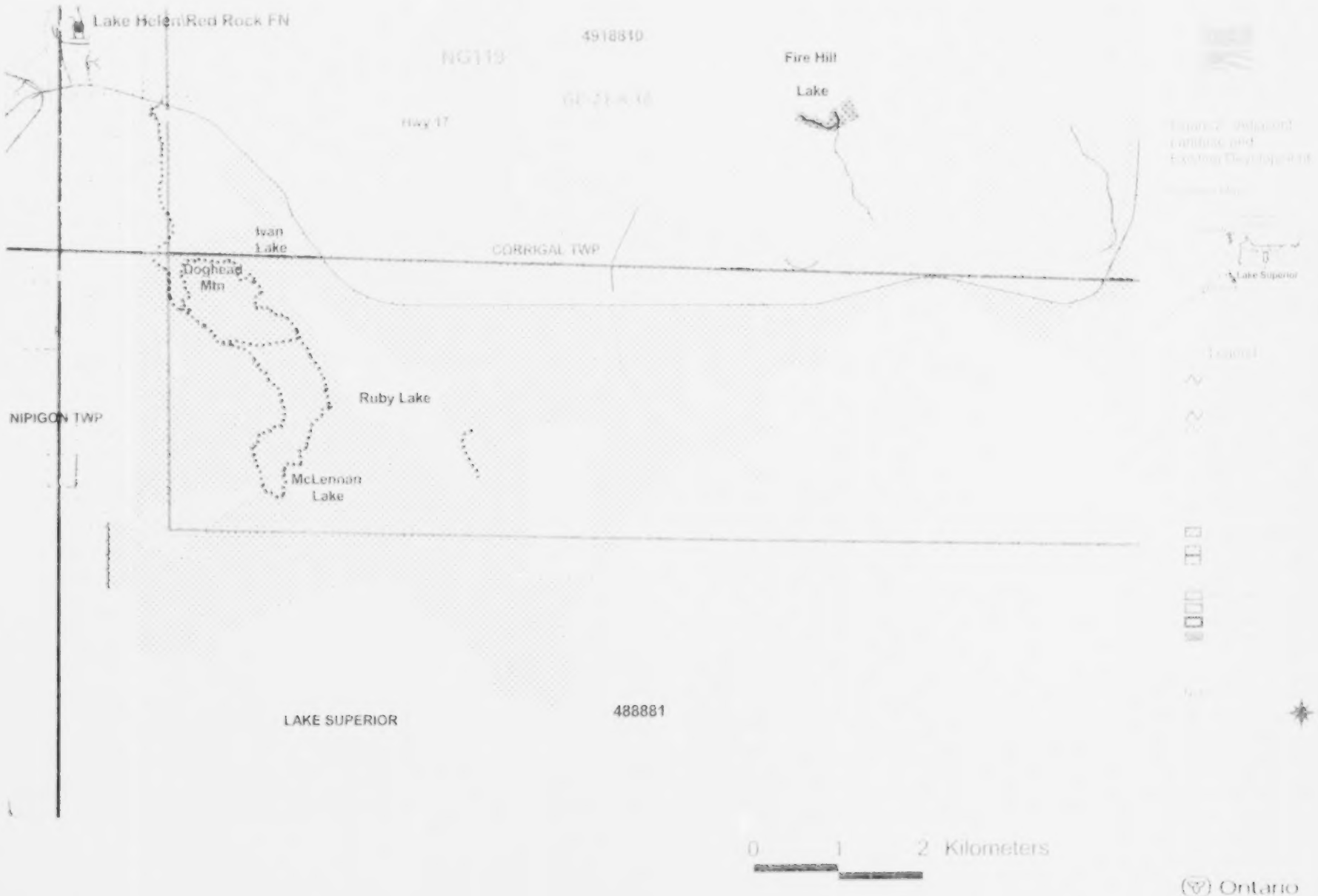
Location Map

Legend

- Primary Roads
- Secondary Roads
- Tertiary Roads
- Transmission Line
- Railway
- Trail
- Rivers and Streams
- Ruby Lake Provincial Park
- Lakes
- Wetland
- Unpatented Mining Claim/ Forest Reserve (F2239)
- Pit/Quarry
- Lot Line
- Thunder Bay Field Naturalists Nipigon Nature Reserve
- Crown Land
- Private Land
- Corrigal Township
- Nipigon Township
- Bear Management Areas
- Trap Lines
- Baitfish Blocks
- Cottage Subdivision

Notes

Ontario


Lake Helen/Red Rock FN
4918810
Fire Hill
Lake
Hwy 17
Ivan
Lake
CORRIGAL TWP
Doghead
Mtn
Ruby Lake
NIPIGON TWP
McLennan
Lake
LAKE SUPERIOR
488881
0 1 2 Kilometers
Ontario

Proposed Nature Reserve Zone 2 (100.2 hectares) Cliffs and Talus slopes

The proposed NR2 (Cliffs and Talus slopes nature reserve zone) encompasses the talus slopes and cliffs of Doghead Mountain and the eastern mesa cuesta (Eastern Palisades). The diabase cliffs and talus slopes form a rare type of open habitat in a forested area, with sparse vegetation dominated by shrubs, mosses and lichens. The diabase cliffs also provide a relatively nutrient rich substrate. These conditions combine to form rare to uncommon vegetation types in Ontario; Basic Open Cliff Type and Basic Open Talus Type (Bakowsky 2002). The purpose of this zone is to protect the plant communities and avian habitat associated the cliffs and talus slopes.

The nature reserve zone designation recognizes the fragility of these resources. Only scientific, educational and interpretive use is permitted in this zone.

7.1.1 Nature Reserve Zone Management Policies

Management will be directed towards the maintenance of an evolving natural succession, unless the rationale for an alternative approach can be documented. Sport hunting is not permitted in nature reserve zones. Rock climbing and scrambling are not permitted in nature reserve zones.[2]

7.2 Natural Environment Zones

Natural environment (NE) zones include natural landscapes, which permit the minimum level of development required to support low-intensity recreational activities. Natural environment zones often serve as buffers between development or access zones and the more protective wilderness or nature reserve zones. Development is limited to trails, necessary signs and minimal interpretive facilities (Figure 3).

Proposed Natural Environment Zone 1 (1,948.7 hectares) Doghead Mountain

The proposed NE1 (Doghead Mountain and western part of the park natural environment zone) includes:

- The area of the park west of the quarry access road to the western park boundary (Nipigon Township line),
- The area of the park from the north park boundary at the railway right of way, south to the shore of Lake Superior and
- The area of the park west from the southwest corner of the mining claim TB1232451, which is located in UTM (zone 16, nad83): 414173 E, 5424673 N; Geographic (decimal degrees): -88.17270°?W 48.96901°?N; Geographic (lat/long): 88°10' 21.72" W 48°58' 8.44" N, due south to the shore of Lake Superior, and
- The balance of Ruby and Ivan lakes that is not zoned NR1.

This proposed zone contains the main network of hiking trails that traverse Doghead Mountain. The purpose of this zone is to separate the portions of the park that are used for hiking from the parts of the park that are used for hunting. Sport hunting is not permitted in the NE1 zone. This zone also contains the remains of one of the satellite Kallio's logging camps. This zone also provides protection to earth science, life science, and cultural features.

Proposed Natural Environment Zone 2 (555.9 hectares) East Side of the park

The proposed NE2 (east side of the park natural environment zone) includes:

- The area of the park east of the quarry access road to the eastern park boundary at the shore of the Jackfish River,
- The area of the park from the north park boundary at the railway right of way, south to the shore of Lake Superior and
- The area of the park east from the southwest corner of the mining claim TB1232451, which is located in, UTM (zone 16, nad83): 414173 E, 5424673 N; Geographic (decimal degrees): -88.17270°?W 48.96901°?N; Geographic (lat/long): 88°10' 21.72" W 48°58' 8.44" N, due south to the shore of Lake Superior.

The purpose of this zone is to spatially separate the shoulder season (autumn and early winter) hiking and hunting activities in the interest of public safety. NE2 is designated as an area to permit hunting.

7.2.1 Natural Environment Zone Management Policies

Management will normally be directed towards the maintenance of an evolving natural succession, unless the rationale for an alternative approach can be documented.

---

[2] Rock climbing and scrambling may cause disturbance to these provincial species at risk during important life stages such as nesting and fledging. Both bald eagle and peregrine falcon are regulated endangered species protected under the *Ontario Endangered Species Act*: **Prohibited Acts 5.** No person shall wilfully, (a) kill, injure, interfere with or take or attempt to kill, injure, interfere with or take any species of fauna or flora; or (b) destroy or interfere with or attempt to destroy or interfere with the habitat of any species of fauna or flora declared in the regulations to be threatened with extinction. R.S.O. 1990, c. E.15, s. 5.

Existing and new development is limited to trails and signs. New trail development and/or realignment of existing trails will be supported by a resource inventory and will be undertaken in accordance with approved site and development plans. Waste generated by park users will be disposed outside the park at an established facility.

7.3 Access Zones

Access (A) zones serve as staging areas, a means of both providing and regulating use in areas of the park geared towards low-impact recreation. Development is limited to roads and visitor control structures although limited self-use orientation, interpretive or educational facilities may be developed. Limited facilities for research and park management may also be present.

Proposed Access Zone 1 (5.8 hectares) Western Access

The proposed A1 (western access zone) takes in the northwest corner of the park at the location of the glacial ice contact delta for the eventual development of a parking lot and vault privies. The purpose of this zone is to connect with the existing forest access road that abuts the park and to serve as a staging area for hiking.

Proposed Access Zone 2 (97.4 hectares) Eastern Palisades Access

The proposed A2 (Eastern Palisades access zone) includes the existing quarry road from the park boundary to the top of the eastern mesa cuesta. It includes the area at the top of the mesa, for the eventual development a parking area with vault privies, picnic tables and a walking trail to the cliff's edge with a viewing pod. The purpose of this zone is to provide accessible viewing opportunities and limited day-use.

7.3.1 Access Zone Management Policies

Any development of the access zones such as parking lots and/or viewing pods will be supported by a site inspection and resource inventory and will be undertaken in accordance with approved site, development plans and environmental assessment requirements.

8.0 RESOURCE STEWARDSHIP POLICIES

The stewardship of Ruby Lake Provincial Park's natural and cultural resources will conform to the policies identified for natural environment class parks in *Ontario Provincial Parks: Planning and Management Guidelines* 1992. Additional policy direction is provided in the following section.

8.1 Natural Resources

8.1.1 Landform

The management of the park's land base will be directed towards maintaining the natural landscape. Mineral exploration and mining are prohibited within the park.

Ruby Lake Marble and the associated mining claims are not part of Ruby Lake Provincial Park but are designated as a Forest Reserve. Forest Reserves are land use designations created through Ontario's Living Legacy Land Use Strategy where protection of natural heritage and special landscapes is a priority, but some resource use can take place with appropriate conditions. Refer to Table 2 in Appendix A for more detailed policy direction for the Ruby Lake Forest Reserve.

Aggregate extraction from sources within the park is prohibited. Aggregate for park development and operations purposes will be acquired from commercial sources outside the park.

8.1.2 Water

Ruby and Ivan Lakes are the significant aquatic resources for Ruby Lake Provincial Park providing wildlife viewing opportunities as well as canoeing and sport fishing opportunities for pike and perch. The park's small streams and smaller lakes contain perch, brook trout and rainbow trout. Fish species in the waters of Lake Superior adjacent to the park include trout, smelt, lake and round whitefish, herring, northern pike, perch, white sucker, Chinook and Coho salmon and sturgeon.

Surrounding land use does not presently have a direct impact on the water quality for recreation. There is no source of treated water for human consumption within the park.

Water quality for fisheries habitat and recreational purposes will be maintained.

Commercial hydro development is not permitted.

8.1.3 Vegetation

Management of vegetation within the park will be directed to support the evolving natural succession of communities.

Commercial timber harvesting is prohibited within the park.

Infestations of forest insects and diseases will be monitored and assessed. Non-native species will be controlled in all zones. If control measures are undertaken, they will be applied to minimize effects on the general park environment. Biological controls will be used wherever possible.

The removal of hazard trees will be permitted in all zones where safety is a concern (e.g. trails and roads). Areas experiencing adverse use impacts will be rehabilitated whenever possible using plant species native to the park.

Brushing along secondary roads as well as along hiking trails will be permitted to improve sight lines and/or traffic flow.

Herbicide applications will be discouraged for vegetation management.

Any development that requires the removal of vegetation will be supported by a vegetation inventory in accordance with approved site plans.

8.1.4 Fire

In the developed areas of the park, fires will be managed to protect park visitors, to minimize the loss or damage to park property and infrastructure, and to prevent socio-economic disruption to adjacent landowners and communities. All fires that threaten park visitor safety or park infrastructure will receive an immediate response and sustained action until extinguished. The use of any Suppression Action requires the approval of a Fire Assessment Report (FAR).

Fire management will promote a "naturalness" objective to approximate a natural forest and wildlife habitat condition. Light on the Land fire suppression techniques is the preferred option when protecting sensitive features. Examples of these techniques include:

- Limiting the need to remove trees by utilizing natural clearings for helipads, base and line camps and support installations;
- Locating support facilities away from recreational areas and main travel routes;
- Locating fuel caches at previously used locations (removed after fire situation subsides);
- Minimizing the use of chemical fire retardant and foam;
- Utilizing hose lines and indirect suppression techniques instead of mechanically constructed fire breaks;
- Minimizing tree felling and unnecessary noise
- Removing all garbage and constructed objects; and
- Practicing safe fuel handling and disposal.

A fire management plan will be prepared for Ruby Lake Provincial Park to:

- Identify the appropriate response to fires to prevent personal injury, value loss, and social disruption, both within and outside protected areas.
- Ensure that fire management activities are compatible with the objectives for Ruby Lake Provincial Park.
- Advance the use of fire to meet ecosystem and resource management objectives including the use of prescribed burns and prescribed natural fire.

8.1.5 Wildlife

Wildlife management may be undertaken on an "as required" basis in order to protect the health and safety of the park visitors or to protect park facilities.

Assessment and monitoring of the avian species at risk (peregrine falcon, bald eagle, and American white pelican) for nesting and foraging may be undertaken to support wildlife management projects.

Hunting is permitted, by regulation, only within the boundaries of the NE2 (natural environment zone on the east side) of Ruby Lake Provincial Park.

Commercial trap line NG 119 is located within the park. Trapping is a permitted activity that may continue indefinitely. There are no Bear Management Areas (BMAs) within the park, however a BMA may be issued for the NE2 zone in which hunting is a permitted activity.

Nuisance animals will be trapped and removed and or destroyed under the supervision of, or directly by Ontario Parks staff. This control will be used as a last resort when it is essential for the protection of human health and safety, the health of animal species, or the protection of park infrastructure.

Status Indians having Aboriginal and Treaty rights to carry out traditional natural resource harvesting activities shall be permitted to carry on these activities in accordance with the terms of their treaty within their treaty areas.

8.1.6 Fisheries

Sport fishing is permitted in the park. The use and possession of baitfish is prohibited in park waters. All fishing activity will be subject to the policies and regulations of the Ontario Fishing Regulations. The Park Superintendent may take steps to restrict sport fishing at certain times and locations for the purposes of fisheries management and/or public safety.

Rehabilitation of fisheries habitat is permitted.

Commercial fishing is prohibited in park waters. Baitfish Block 488881 includes both Ruby and McLennan lakes. Baitfishing is a permitted activity that may continue indefinitely.

Status Indians having Aboriginal and Treaty rights to carry out traditional natural resource harvesting activities shall be permitted to carry on these activities in accordance with the terms of their treaty within their treaty areas.

8.2 Cultural Resources

The focus of cultural/heritage representation in Ontario Parks is the protection of significant landscape-related cultural resources. Cultural resources will be managed to ensure their protection, and to provide opportunities for heritage appreciation and research where these activities do not impair the resource. This will be achieved through zoning and by controlling any recreational activities, development and research that may occur in these areas.

In the event of a discovery of archaeological or historic sites within the park, Ontario Parks will work with the Ministry Culture in their inventory, protection and maintenance. If deemed appropriate for the protection and preservation of cultural resources, such inventory may include excavations of archaeological sites. Excavations by authorized licensed personnel with appropriate research permits will be conducted under the approval and supervision of the above ministries. Upon completion of an excavation, the site or portions of the site will be returned to their original condition, or will be developed for the purposes of interpreting the cultural resources of the site. The type and extent of such development will be determined by the findings from the excavation.

The removal of artifacts or destruction of historical features is illegal and is prohibited. Significant archaeological discoveries may necessitate alterations to future development plans.

Ontario Parks will consult with the Red Rock First Nation on matters pertaining to Aboriginal history, any sites found within the park associated with Aboriginal culture, interpretation of First Nation's history, and appropriate use of cultural artifacts. The precise location of any found Aboriginal cultural sites, including burial sites will not be disclosed to the public.

9.0 OPERATIONAL POLICIES

Operational policies deal with topics such as natural heritage education, recreation management, and the provision of recreation services, business planning and research.

Ruby Lake Provincial Park is currently a non-operating park. The park has no operating budget, nor additional staff, beyond the Park Superintendent.

Ontario Parks will consider operating Ruby Lake Provincial Park in a partnership arrangement at such a time that use levels of the park allow sufficient revenues to achieve cost recovery.

When use levels merit, a park operating plan will be prepared for Ruby Lake Provincial Park. The park operating plan will provide park staff and potential partners with the necessary information required to operate the park on a day-to-day basis. In addition to addressing operational policies, the operating plan will include such topics as budget, staffing, maintenance, enforcement and emergency services. The provisions of the operating plan will be consistent with the approved *Ontario Provincial Parks Minimum Operating Standards* (1992). The operating plan will be reviewed annually and revised as required.

9.1 Natural Heritage Education

As outlined in the *Strategic Plan for Natural Heritage Education in Ontario Parks* (1997), the goal of the natural heritage education (NHE) program is to develop visitor awareness and appreciation of Ontario Parks' natural and cultural heritage, fostering a commitment to its protection for all generations. Opportunities to do so will be educational and recreational, formal and informal, and accessible to all people.

The objectives of the NHE program are to provide basic information in all parks; interpretation of Ontario's natural and cultural heritage in provincial parks; and outdoor recreation in representative landscapes in Ontario. There are three levels of NHE service in the provincial park's system: *Self-use, Seasonal,* and *Major Activity*. Ruby Lake will offer a

self-use level of programming.

When an operating plan is prepared for the park at such a time that use levels merit, a Natural Heritage Education Plan will be prepared. Direction will be taken from provincial policy, the *Northwest Zone Natural Heritage Education Plan*, and the park management plan. The Ruby Lake Natural Heritage Education plan will be reviewed and updated annually. The scope and intent of all NHE activities will be carefully defined to ensure their compatibility with park features as well as with the Great Lakes Heritage Coast Signature Site and Parks Canada's Lake Superior National Marine Conservation area.

A Sign Plan will be prepared when an operating plan is prepared for the park at such a time that use levels merit.

9.1.1 Park Information

The public information program (Parks Guide and the Ontario Parks website) will be used to promote Ruby Lake Provincial Park when an operating plan is prepared for the park at such a time that use levels merit. It will provide visitors with information about the park and its resources, environment and facilities. This information emphasizes the visitor's role in maintaining the natural environment of the park, appropriate behaviour in the park, safety in the outdoors, and nuisance animals. Park literature will also advise visitors about commercial services and attractions in the local area and other provincial parks.

A park map will be developed when an operating plan is prepared for the park at such a time that use levels merit, enabling visitors to explore and use the park. A "respect the environment" ethic will be promoted in order to minimize human impact on the park environment. The importance of respecting other users will also be emphasized.

9.1.2 Interpretation

Interpretive facilities provide park visitors with a greater appreciation for and understanding of the natural and cultural features of Ruby Lake Provincial Park. Printed material, self-use facilities and informal personal contact will be the primary means of interpretation. The park's primary interpretive theme relates to the geological significance of the Keweenawan diabase sills (Geology and Landscape) and the ruggedly scenic landscape of the north shore of Lake Superior. Other themes include the unique ecological characteristics of the Superior shoreline; the Basic Open Cliff and Basic Open Talus vegetation types; the arctic-alpine disjuncts as well as the relationship between humans and the rugged north shore landscape; both prehistorically and historically. Innovative ways of cooperative portrayal of these themes will be pursued with other agencies.

Ruby Lake Provincial Park shall work with Red Rock First Nation to ensure that any potential interpretation of Aboriginal cultural features is accurate and appropriate.

9.1.3 Recreation

Basic recreation information provided on the park map will acquaint visitors with the attributes of the park, its dangers (e.g. cliffs and crevasses) and safety considerations.

9.2 Recreation Management

Recreation management provides a variety of recreational opportunities while aspiring to minimize environmental impacts in recognition of the park's significant landscape. Recreational activities that are incompatible with the park goal or with specific zones are prohibited or restricted. Prevention and control of such activities will be achieved through education of park visitors concerning appropriate uses in the park in general and within specific zones (Figure 3 and Appendix A Table 1). Limited monitoring of visitor use will be undertaken by Ontario Parks staff; when an operating plan is prepared for the park at such a time that use levels merit, staff resources will be committed to recreation monitoring and enforcement.

9.2.1 Day-Use Areas

Day-use opportunities may be developed at the Eastern Palisades access zone (A2). Services provided may include parking, picnic tables, fireplace grills, and water and vault privies.

The access road to the top of the eastern mesa (A2) may be upgraded to allow 2 wheel drive vehicles when capital resources are available, subject to site inventory, a site plan and negotiations with CPR.

The access road to the western trailhead (A1) may be upgraded to include a railway crossing as well as parking and privies if/when capital resources are available, subject to site inventory, a site plan and negotiations with CPR, the SFL holder and the gravel pit operator.

A pay and display fee collection system may be installed in both A1 and A2 in order to collect fees on a year-round basis.

Aircraft landing is not permitted in Ruby Lake Provincial Park.

Camping is not permitted in Ruby Lake Provincial Park.

9.2.2 Trails

The trail system at Ruby Lake (Figure 4) experiences moderate use by day-use visitors.

Ruby Lake Provincial Park includes an extensive network of trails, the majority of which are located in the western portion of the park, although there are some trails in the east that provide access to the cliffs and crevasses located on that side of Ruby Lake. The western trail system consists of one main loop, which is known as the 'lookout' or 'red trail' and runs along the eastern edge of Doghead Mountain. There are also optional side-trips to Kallio's Pond, Honeymoon Lookout (a rock barren that overlooks Nipigon Bay) and Cathedral Rock (a large piece of exposed bedrock on the shore of McLennan Lake). There is also a short cut, which is known as the 'blue trail' that leaves the main trail approximately half way along the length of Doghead Mountain and re-joins it at a place known as 'the Crossroads', which is less than half an hour away from the trailhead.

All of the western trails, which were built by a small group of local residents, are well marked and easy to follow. Flagging tape has been used to mark the majority of the trails, although some trees have been blazed and marked with paint. The side-trips are either marked with small signs or with a different colour of flagging tape.

The eastern trails were developed in the early 1990s when peregrine falcons were hacked in the area. These trails are not as well maintained nor as well marked as the park's western trails.

The trails will be maintained by park staff or partners/volunteers and may require hard landscaping and/or realignment in some locations to help prevent trail degradation and erosion, or to protect sensitive features. New trails may be developed in the NE1 and NE2 zones supported by site inventory and in accordance with a trail site plan.
Ontario Parks will post trail courtesy directional, safety and interpretative signage to Ontario Parks standards, as required.

The use of mountain bikes is not permitted on the hiking trails; off-trail biking is not permitted.

Rock climbing, and scrambling are not permitted.

Motorized vehicle use on the hiking trails is prohibited. Motorized vehicle use, including ATVs and snowmachines, is permitted on existing tote roads / trails in NE2 **only** during hunting seasons for moose, deer and grouse. ATVs and snowmachines are permitted to access the trap lines.

Existing road corridors through the park are a permitted non-conforming use. New road, rail and utility line corridors will not be permitted within the park boundary.

9.2.3 Viewing Opportunities

Due to the topography and large number of scenic lookouts located within the site, Ruby Lake Provincial Park offers outstanding views of the surrounding area, including Lake Helen, the mouth of the Nipigon River and Nipigon Bay, with its many islands. Lookout points are situated on the existing hiking trail, making them readily accessible. Many of these lookouts have been named by local residents and a few of the more notable points are 'The Dog's Nose,' 'Falcon's Roost,' 'Paradise Lookout' and 'The Pup.' All of these lookouts offer excellent panoramic views of the distinctive mesa-cuesta landforms, such as Doghead Mountain and the Kama Hill Formation, that characterize the region.

Ontario Parks may develop viewing pods at the Eastern Palisades subject to available resources and in accordance with a site inventory and a site plan.

The park's cliffs and the crevice systems near the cliff-edges represent an inherent danger for park users. The hazards here are not unlike those at Kakabeka Falls, Ouimet Canyon, Pigeon River, and Sleeping Giant Provincial Parks (e.g. someone slipping off a cliff or falling into one of the deep joint cracks). Appropriate signs warning of the danger will be installed at the trailheads.

9.2.4 Ruby and Ivan Lakes

Motorized watercraft is not permitted on Ruby or Ivan Lakes. Sport fishing is permitted subject to the policies and regulations of the Ontario Fishing Regulations.

A portage may be developed from the forest access road to Ivan Lake to facilitate access for non-motorized watercraft.

9.2.5 Winter Use

Winter use of Ruby Lake is moderate due to the relative accessibility of the park to Nipigon and the TransCanada Highway. Day-use consists of snowshoeing and cross-country skiing on park roads and trails, creeks and lakes.

Snow machine use in the park is restricted to existing tote roads in NE2 during hunting season.

9.2.6 Greater Ecosystem

Within the context of the greater ecosystem, it is important to consider the ecological, social and economic relationships that Ruby Lake Provincial Park has with the surrounding area. Especially important is the ecological link between the park and Lake Superior. Social and economic links include the area First Nations, and the local communities of Nipigon and Red Rock whose residents and businesses either visit the park and/or utilize the park as an anchor/draw for recreation activities and/or for business opportunities.

Ruby Lake provides nesting habitat for bald eagle and peregrine falcon, as well as foraging habitat for American white pelican. As such, the park provides important ecological links to the greater ecosystem for the protection of these regulated endangered species.

Ruby Lake is located in an outstanding recreational environment linked by the spectacular shoreline of Lake Superior and by transportation corridors, including highways, railroads, non-mechanized and mechanized trails, as well as by water.

The importance of Lake Superior's north shore is gaining recognition through the Great Lakes Heritage Coast Signature Site (GLHC). The GLHC is one of nine *Ontario's Living Legacy* Signature Sites with a range of significant natural features and world-class tourism and recreation values that warrant special strategies.

The GLHC extends 4,200 kilometres from Port Severn on Georgian Bay, including Manitoulin, Cockburn and St. Joseph islands, to Pigeon River Provincial Park at the Ontario-Minnesota Border. Ruby Lake Provincial Park is one of 71 new and existing provincial parks and conservation areas along the coast.

Ruby Lake Provincial Park is adjacent to the Parks Canada Lake Superior National Marine Conservation Area (NMCA). National Marine Conservation Areas are intended to protect the coastal marine resources of each of Canada's marine regions. These resources include the lakebed, its overlaying waters and wetlands, river estuaries, islands and coast. The Lake Superior NMCA boundaries are currently under negotiation with the Province of Ontario. Some of the many partnership proposals include joint research, visitor services and marketing.

The Thunder Bay Field Naturalists' Nipigon River Mouth Nature Reserve enhances the protection of the natural heritage of the Ruby Lake land base.

The Ruby Lake Forest Reserve contains four active mining claims that include an active quarry that produces dimensional stone. Ontario Parks will work with the quarry operator to ensure that any impacts to adjacent park lands are minimized / mitigated. If a claim/lease lapses or is retired, these lands will be added to the park to improve park integrity.

Examples of other industrial activities that occur adjacent to the park and may have impacts that cross park boundaries include the mills at Nipigon and Red Rock. The adjacent TransCanada highway and CPR corridor have truck and train shipments of a vast array of goods ranging from automobiles to timber and industrial chemicals.

Ontario Parks will provide support, in the form of information to park visitors and participation by staff in local and regional initiatives, to assist in the coordination of recreation opportunities that are compatible with park values. Ontario Parks will seek to maintain a supportive working relationship/dialogue with individuals, groups and agencies that share the greater park ecosystem.

9.3 Tourism Services

Tourist information centres are located at Pigeon River, and in Thunder Bay, Nipigon, Terrace Bay and Marathon to provide service to the northwest shore of Lake Superior. The centres provide both residents and visitors with information about recreation opportunities, accommodation, and regional information. Ontario Parks will continue to work in co-operation with the Ministry of Tourism and Recreation regional tourism organizations, and the local municipalities to optimize this development and to fulfill park promotion and marketing objectives.

Given the relatively small size of Ruby Lake Provincial Park and its proximity to existing service centres (Nipigon and Red Rock) dispositions for commercial tourism operations (food and beverage services,

equipment rental, accommodation) will not be considered within the park boundaries.

9.4 Marketing

A marketing plan will be developed for Ruby Lake Provincial Park in accordance with established Ontario Parks policy. It will be reviewed and revised as required. Marketing activities will be consistent with the zone and provincial marketing plan. The objectives of the marketing plan are protection of the park values as well as:

- To capitalize on the park's natural and cultural features;
- To increase awareness of Ontario's species at risk;
- To provide visitors with a unique outdoor experience within the park goal and objectives;
- To optimize the local, regional, provincial, national, and international markets for the park;
- To encourage park visitation and the use of the park as a catalyst to stimulate the local and regional economy;
- To encourage park shoulder season use and visitation to low use areas of the park but in keeping with the park goal and objectives;
- To work cooperatively with local commercial establishments;
- To encourage visitors to enjoy the attractions of the surrounding area;
- To work cooperatively with municipal, regional, and provincial marketing travel and tourism associations;
- To work cooperatively with the Great Lakes Heritage Coast and the National Marine Conservation Area initiatives;
- To increase the park's market share of the region's Foreign Independent Traveler;
- To increase awareness of Ontario Parks' seasonal day-use permits.
- To encourage use by non-park users.
- To maintain existing levels of park use by park visitors and to increase their scope of usage of the park, and
- To investigate linkages with other hiking trail systems in the area.

9.5 Research

Ontario Parks' research and information needs relate directly to the Ministry of Natural Resources' mandate and the provincial park's goal and objectives. Park-based research needs to address the wide range of environmental, social and economic factors necessary to administer an ecologically sustainable system of parks. It is also important that research activities address the demand for good quality outdoor recreation experiences and customer satisfaction. Research information needs are diverse. They cover the full spectrum of geological, biological, ecological, cultural and social sciences.

Scientific research and monitoring by qualified groups and individuals which contribute to the knowledge, inventory and identification of natural and cultural features and to environmental and recreational management objectives will be encouraged where appropriate. Subjects of particular interest to Ruby Lake Provincial Park include geomorphology and geology, the regional industrial history of the CPR and logging, as well as life science studies.

All research programs must be compatible with the park's goal, objectives and zoning prescriptions. Research projects require prior approval and must be conducted in accordance with Ontario Parks' policy concerning research in provincial parks. Research must also meet all other applicable provincial requirements. Park staff at the zone office will monitor these research programs. Any archaeological research will also require approval and monitoring by the Ministry of Tourism, Culture and Recreation. Should provincially or nationally significant features/resources be found, the management plan may be amended to ensure that protection will be provided through appropriate zoning or revision of plan policies.

Park user surveys will address levels of satisfaction, needs assessment, demographics, spending patterns and user profiles.

10.0 DEVELOPMENT POLICIES

Development policies identify priorities for new development as well as redevelopment of existing facilities. Development is implemented through business and work program planning, based on priority and subject to the availability of funds, and in accordance with approved site and development plans that detail the location, type and extent of development permitted.

Ontario Parks will:

- Work with the Ministry of Culture to conduct archaeological site assessments in the area of the proposed development. Should sites be discovered in an area, inventory of the site(s) will occur; and
- Undertake earth and life science inventories so that developmental impacts can be mitigated.

Development will be limited to necessary signs and trails in natural environment zones and viewing pods, parking lots, picnic tables and privies within access zones.

10.1 Access and Circulation

The construction of new roads, bridges and utility corridors for park purposes will be directed by approved implementation and site plans. Such projects will be permitted in the access zones only. Construction will be closely monitored.

The improvement of access to Ruby Lake Provincial Park (A1 and A2) will be directed by approved site plans and implementation plans.

The road access to the Ruby Lake Marble quarry is permitted in accordance with Ontario's Living Legacy Land Use Strategy. As well, maintenance of this road by the quarry operator/mining landholder to ensure continued access to the claims is permitted.

10.2 Day-use Area

Day-users are local residents, mostly from Nipigon and Thunder Bay. A considerable proportion of day-users may eventually originate as tourists travelling the north shore who visit the park as one of several destinations or as an unplanned stopover en route.

Development of A2 on the Eastern Palisades will focus on:

- The provision of safe and accessible viewing opportunities through viewing pod construction.
- A limited amount of development to provide parking, privies and picnicking facilities.

10.3 Trails

The expansion of permitted uses (for example, to include mountain biking, or horseback riding) will not be considered. Trail courtesy signage will be posted to minimize potential conflict between trail users. Existing trails may be realigned or closed for safety reasons or to protect sensitive features subject to site inventory and site plans. New hiking tails may be developed in the NE1 and NE2 zones supported by site inventory and in accordance with a trail site plan (Figure 4B).

The construction of new trails in the natural environment zones will be subject to approved site plans.

10.4 Utilities

No utility corridors pass through the park. New non-park utility corridors will not be permitted.

10.5 Recreation and Tourism Services

Ontario Parks will continue to operate in a business-like way. Park staff will monitor visitor needs and customer service.

10.6 Interpretive Facilities

The combination of regionally and provincially significant features and the low to moderate visitation level requires that Ruby Lake Provincial Park provides a *self-use* activity level of service.

10.7 Park Maintenance and Operation

Ontario Parks will monitor visitation levels and will consider operating the park in partnership at such time that use levels allow sufficient revenues for cost recovery. The development of park operations and maintenance facilities will not occur on site, unless use levels allow sufficient revenues to achieve cost recovery. The park superintendent will use existing office space in the Terrace Bay District Office.

11.0 PLAN IMPLEMENTATION AND REVIEW

In the implementation of the approved park management plan, Ontario Parks may pursue opportunities for partnerships involving other agencies and groups. Park development, operations and resource stewardship will be contingent upon the availability of funding and unforeseeable changes in priority or policy. Funding may be derived from a variety of sources, including corporate sponsorships and donations. Implementation of the management plan and the operation of the park will meet the requirements of the *Environmental Assessment Act*, *Provincial Parks Act* and other applicable legislation.
Unless otherwise identified in this document, implementation priorities may be established in subsidiary operating and resource stewardship plans. Preparation of these plans will involve the appropriate level of public consultation. A list of implementation priorities follows.

11.1 Resource Stewardship

- Preparation of trail/site inventories and trail/site plans to identify and protect alpine /arctic disjuncts.
- Assessment of the ecological role of the park with regard to avian species at risk for nesting and foraging.
- Development of a fire management plan.
- Preparation of a natural heritage education plan.

- An investigation of the Kallio's satellite logging camp sites to determine exact locations and extent, as well as primary source collection from former workers at the camp.
- An archeological assessment of the park with emphasis on access zones.
- Development of a strategy/working relationship with Ruby Lake Marble Limited to monitor and mitigate any potential impacts of the quarry operations on park values

11.2 Development

- Preparation of a sign plan to address highway entrance, directional, courtesy, safety and interpretive signage.
- Development and implementation of a site plan for the A2 (Eastern Palisades access zone) for viewing and day-use.
- Development of a site plan for the A1 (western access zone) for parking.
- Realignment and or upgrading of park trails as required.

11.3 Operations/Administration

- Preparation of a park marketing plan/strategy.
- Annual review of the operating plan and the business plan.
- Consideration of the establishment of a Friends of Ruby Lake organization.

11.4 Project Screening

The *Environmental Assessment Act* requires that all park management activities conform to approved legislation, policy, procedures, guidelines and standards, including provisions for public notice. The preparation of this park management plan constitutes the principal public review opportunity for activities and projects. Exceptions to this are projects where further study is required, or where a decision has been deferred to a subsidiary plan.

12.0 Social and Economic Impact Analysis

Ruby Lake Provincial Park has the potential to become an important part of the region's tourism infrastructure. The projects and activities identified provide a wide range of social and economic benefits both within the park and in the surrounding area.

12.1 Benefits of Provincial Parks

Provincial parks provide a wide range of social, economic and environmental benefits. Some of the benefits can be measured in economic terms other benefits cannot. Traditionally, Ontario Parks has reported on the economic impacts associated with park and visitor expenditures.

12.2 Economic Impacts *(Benefits from expenditures)*

Economic impact is one way to demonstrate the flow of park and visitor expenditures in the economy. Ontario Parks calculates the economic impacts associated with park expenditures and the estimated visitor spending at provincial parks.

Ontario Parks reports on the following indicators of economic impact (Appendix B):

- Value Added
- Provincial Gross Sales (or Provincial Gross Output)
- Wages & Salaries
- Provincial Person Years of Employment

Economic impacts are based on expenditures. The expenditures made by the park on operations and capital as well as average visitor trip expenditures (camper and day visitor) compose the initial expenditure.

There are other benefits which provincial parks and protected areas provide to local communities, to the province and to society as a whole. The following are important benefits and help to demonstrate how the park supports our quality of life:

- Protection and contribution to ecological functions (water & soil production),
- Protection of resource integrity (some of the last green spaces left in the province),
- Health effects from use of parks (mental, physical, spiritual benefits),
- Worker productivity (healthy and happy workers tend to be more productive - a visit to a provincial park can contribute),
- Educational benefits (young and old learning about our environment),
- Scientific benefits (research in provincial parks),
- International responsibilities to protect natural settings, features and wildlife,
- Business location decisions (quality of life/business) and community cohesion.

As well, the public and municipal officials should be aware that provincial parks help to make their communities attractive for business as well as for tourists and retirees. The retirement community brings in pension income, which is often indexed to inflation and is recession proof. Communities with attractive waterfronts, low crime, recreational activities and healthy environments are sought out by the retirement community. The park budget (operating and capital) represents a grant or transfer payment from the government to their community. Not all communities have this transfer. The community may also receive grants in lieu of taxes.

13.0 Plan Review and Amendment

The management plan for Ruby Lake Provincial Park may be reviewed to address changing issues or conditions as necessary. This may involve a reassessment of all or part of the plan, including classification, zoning, goal, objectives and all resource management, operations and development.

A variety of programs will provide essential information concerning the implementation of the management plan and the effectiveness of approved policies. Such mechanisms as the collection of user statistics, periodic user surveys, park management audits, ecological monitoring and user impact assessments will provide valuable information to ensure that policies remain current and relevant. Research findings and resource inventory work may aid in conducting plan reviews.

14.0 SUMMARY OF PUBLIC CONSULTATION

Public consultation is a very important part of the Ruby Lake Provincial Park Management Plan review process. To date, public consultation for the development of the park management plan has included several opportunities:

- Invitation to Participate and to Inspect the Approved Terms of Reference (July 18, 2001-September 14, 2001). This stage included newspaper advertisements, distribution to the mandatory contact list as well as to known stakeholders, posting the *Environmental Bill of Rights* electronic registry (EBR) proposal notice, distribution to park, zone and district offices, and Ministry of Natural Resources Information Centres in Toronto and Peterborough.
- Three written comments were received at the northwest zone office from July 18 to September 14.
- Opportunity to Review the Background Information, Issues and Options (August 1 – September 27, 2002). The Background Information, Issues and Options documents were distributed to the mandatory contact list and to known stakeholders, as well as the EBR notices listed above. The documents were also available on the Ontario Parks website, in order to provide the opportunity to participate to the greatest number of people.
- Written comments were received at the northwest zone office from August 1 to September 27, 2002. Twenty-nine written comments were received from individuals and groups including the Wildlands League, Earthroots, Nipigon residents, Ruby Lake hikers, and business owners, and community representatives from Nipigon.

Park users, local residents, park staff, as well as other groups and individuals, identified the following concerns related to the management of Ruby Lake:

- The provision of direct public access to the west of Ruby Lake Provincial Park, which includes consideration of the uncontrolled (and presently gated) railway crossing, as well as the road corridor through the crown land plantation north of Doghead Mountain (sections 7.3, 10.1 and 11.2).
- The operation of Ruby Lake Marble Limited in the Forest Reserve that is surrounded by Ruby Lake Provincial Park, which includes consideration of how Ontario Parks can work with the quarry operator to protect, and if necessary mitigate park values adjacent to the quarry (sections 4.0, 8.1.1, 10.1, and 11.1).
- The designation of zones to allocate park lands and waters to their most appropriate use. This includes consideration of nature reserve zone(s) to protect sensitive features, natural environment zone(s) to provide for low intensity recreation, and access zone(s) to provide staging area(s) for park users to gain access to the park (section 7.0).
- The appropriate degree of trail development for Ruby Lake. This includes consideration of hard landscaping (boardwalks, primitive bridges, drainage) and trail realignment (section 9.2.2).
- The appropriate suite of recreation activities for Ruby Lake Provincial Park. This includes consideration of existing park policy and direction from the OLL Land Use Strategy with regard to permitted uses/activities (sections 8.0, and 9.2).
- The identification, protection and conservation of cultural features. This includes consideration of a comprehensive archeological assessment of the park (section 8.2).

- The identification, protection and conservation of sensitive natural features. This includes consideration of nesting sites around water and on cliff faces, aquatic feeding areas, arctic disjuncts, orchids and other rare plants (section 8.1).
- Designation for Natural Heritage Education (NHE) programming at Ruby Lake Provincial Park (section 9.1).
- Consideration of Ruby Lake's role in the Great Lakes Heritage Coast / Lake Nipigon Basin Signature Sites (sections 9.2.6, 9.3 and 9.4).
- Consideration of Ruby Lake's role in the adjacent National Marine Conservation Area (sections 9.2.6, 9.3 and 9.4).
- Consideration of the east part of the park (roads and trails) for development of road access, parking, trail upgrade and viewing pods. This includes consideration of access zoning, impacts to future peregrine hacking and the potential conflicts with sport hunting (sections 7.3, 9.2.2, 9.2.3, 10.1, and 10.2).

A detailed summary of the input received in response to this preliminary park plan will be presented in the approved management plan.

Ontario Parks will retain on file reference copies of relevant background information, Terms of Reference, preliminary Management Plan and the approved Park Management Plan.

15.0 REFERENCES

Anonymous. 1998. Canadian Climate Normals: Thunder Bay A Station: 1961-1990. Environment Canada. Atmospheric Environment Service, Ottawa.

Antevs, E. 1951. Glacial Clay in Steep Rock Lake, Ontario, Canada. Geological Society of American Bulletin, v.62, p.1223-1262.

Bakowsky, W. D. Winter 2002. Rare Vegetation of Ontario: Diabase Cliffs of Northwestern Ontario. Natural Heritage Information Centre (NHIC) Newsletter. p. 12-15.

Barry, J. Recreation Inventory Report Ruby Lake Provincial Park (P2239) V1 September 2001. Ontario Parks Northwest Zone Planning and Research Section.

Burger, G. 1993. Revised Site Regions of Ontario: Concepts, Methodology and Utility. Ontario Forest Research Institute. Sault Ste. Marie, Ontario. 25 Pages.

Bryan, S. 2001. Personal Communication. Winter 2001.

Bryan, S. Moore, B. Field Notes to Ruby and Ivan Lakes. July 17/97.

Cheadle's, B.A. 1986. Alluvial-playa Sedimentation in the Lower Keweenawan Sibley Group, *Thunder Bay District, Ontario*. Canadian Journal of Earth Sciences, v.23, p.527-542.

Crins, W. J., and P. W. C. Uhlig. 2000. Ecoregions of Ontario: Modifications to Angus Hills' Site Regions and Districts: Revisions and Rationale (Ontario Ministry of Natural Resources). 7 Pages.

Elson, J.A. 1967. The Geology of Lake Agassiz; in Life Land and Water, (ed.) William J. Mayer-Oakes; University of Manitoba Press, 414p.

Farrand, W.R. 1960. Former Shorelines in Western and Northern Lake Superior Basin. Ph.D. Dissertation. University of Michigan, Ann Arbor, Michigan, 266p.
Farrand, W.R. and Drexler, C.W. 1985. Late Wisconsinan and Holocene History of the Lake Superior Basin; *in* Karrow, P.F. and Calkin, P.E., eds., Quaternary Evolution of the Great Lakes: Geological Association of Canada. Special Paper 30, p.17-32.

Fenwick, K.G. 1976. Geology of the Finlayson Lake Area, District of Rainy River. Ministry of Natural Resources, Ontario Division of Mines, Geoscience Report 145. 86p.

Franklin, J.M. 1970. Metallogeny of the Proterozoic Rocks of Thunder Bay District, Ontario. Unpublished Ph.D. Thesis, University of Western Ontario, London, Ontario.

Franklin, J.M., McIlwaine, W.H., Poulsen, K.H., Wanless, R.K., 1980. Stratigraphy and Depositional Setting of the Sibley Group, Thunder Bay District, Ontario, Canada. Canadian Journal of Earth Sciences, v.17, p.633-651.

Hills, G. A. 1959. A Ready Reference to the Description of the Land of Ontario and its Productivity. Division of Research, Ontario Department of Lands and Forests. Maple, Ontario. 142 Pages.

Hills, G. A. 1961. The Ecological Basis for Land-use Planning Research: Report No. 46. Ontario Department of Lands and Forests, Research Branch, 204 Pages.

Hill, G.A. 1964. Revised map of the site Regions and Districts of Ontario.

Hutchinson, C. 2001. A Biological Inventory and Evaluation of Ruby Lake Provincial Park [Draft]. Ontario Parks, Northwest Zone.

Kelso, R.M. Demers, J.W. 1993. Our Living Heritage; the Glory of the Nipigon. Mill Creek. Echo Bay Ontario.

Kustra, C.R., McIlwaine, W.H., Fenwick, K.G., and Scott, J. 1977. Proterozoic Rocks of the Thunder Bay Area, Northwestern Ontario. Inst. Lake Superior Geol., 23rd Ann. Meeting, Field Excursion Guide, 3-4 May, 1977, 47p.

Leverett, F. 1929. Moraines and Shorelines of the Lake Superior Region. U.S. Geological Survey Professional Paper 154-A, 72p.

Ministry of Natural Resources Lake Superior Fisheries Management Unit.1998. Electrofishing form for Ruby Creek. July 20, 1998

Mollard, D.G. 1979. Northern Ontario Engineering Geology Terrain Study, Data Base Map, Black Bay. Ontario Geological Survey, Map 5046, Scale 1:100 000.

Mulrooney, D. 2001. Ontario's Living Legacy Guidelines for Recreation Resource Inventory, Version 2 – June 2001. Ontario Parks, Planning and Research Section.

Noble, T.W. (in press). The Post-Algonquin Ice Margins and the Younger Dryas.

Noble, T.W. (in press). The Marquette Advance and Subsequent Events.

Noble, T.W. 2001. Earth Science Inventory Ruby Lake Provincial Park. Open File Earth Science Report 2001-3.

Ojakangas, R.W., and Morey, G.B. 1982. Keweenawan Sedimentary Rocks of the Lake Superior Region: A Summary, Geological Society of America, Memoir 156, p.157-171.

Ontario Ministry of Natural Resources. 2000. Ruby Lake Provincial Park: Interim Management Statement. Queen's Printer for Ontario. Ontario, Canada. 9 Pages.

Ontario Ministry of Natural Resources. 1999. Ontario's Living Legacy Land Use Strategy. Queens Printer for Ontario. Ontario, Canada. 135 Pages.

Ontario Ministry of Natural Resources. January 1995. Forest Values Sustainable Forestry Social Economic Impact Model. Technical Manual.

Paulsen, H. 2001 Personal Communication to J. Barry.

Prest, V.K. 1970. Quaternary Geology of Canada, *in* Douglas R.J.W., ed., Geology and Economic Minerals of Canada Chapter 12: Geological Survey of Canada. Economic Geology Report No. 1, Fifth Edition, p.675-764.

Pye, E.G. 1969. Geology and Scenery, North Shore of Lake Superior. Ontario Department of Mines: Geological Guide Book No. 2., Ontario. 144 p. (reprinted 1975).

Ratcliff, B. 2000. Personal Communication to C Hutchison. July 10, 2000.
Ride, K. 2000. Northwest Science and Technology, Ontario Ministry of Natural Resources. *Personal Communication December 2000.*

Rowe, J. S. 1959. Forest Regions of Canada, Canada Department of Northern Affairs and National Resources Forestry Branch. Bulletin 123. Queens Printer and Controller of Stationery. Ottawa. 71 pages.

Rowe, J. S. 1972. Forest Regions of Canada. Department of the Environment Canadian Forestry Service Publication No. 1300. Information Canada, Ottawa, 172 Pages.

Sims, R.A., and K.A. Baldwin. 1991. Landform Features in Northwestern Ontario. Forestry Canada, Ontario Region, Sault Ste. Marie. Ontario, 63 Pages.

Rittenhouse, G. 1934. A Laboratory Study of an Unusual Series of Varved Clays from Northern Ontario. American Journal of Science, v.28, p.110-120.

Saarnisto, M., 1975. Stratigraphical Studies on the Shoreline Displacement of Lake Superior. Can. Jour. Earth Sci., v.12, p.300-319.

Savioja, T. 2001. Personal Communication to J. Barry.

Sharpe, D.R. and Cowan W.R. 1990. Moraine Formation in Northeastern Ontario; Product of Subglaical Fluvial and Glaciolacustrine Sedimentation.

Canadian Journal of Earth Sciences, v.11, p.1478-1486.

Stanley, G.M. 1932. Abandoned Strands of Isle Royale and Northeastern Lake Superior. University of Michigan. Unpublished Dissertation, 158p.

Stockwell, C.H., McGlynn, J.C., Emslie, R.F., Sandford, B.V., Norris, A.W., Donaldson, J.A., Fahrig, W.F., and Currie, K.L. 1972. Geology of the Canadian Shield; *in* Geology and Economic Minerals of Canada, Geological Survey of Canada, Economic Geology Report 1, p.143-150.

Sutcliffe, R.H. 1991. Proterozoic Geology of the Lake Superior Area; in Geology of Ontario, Ontario Geological Survey, Special Volume 4 Part 1 p. 627-658.

Thunder Bay Field Naturalists. Website. February 2003.

Thurston, P. C. 1991. Geology of Ontario: Introduction. *In* Geology of Ontario: Ontario Geological Survey: Special Volume 4, Part 1. Ontario Ministry of Northern Development and Mines. Queens Printer for Ontario. Pages 3 to 22.

Van Wagoner, D. August 2000 Tourism Trends and Opportunities in the North of Superior Region. Ministry of Northern Development and Mines

Warman, T.A., 1991. Glaciolacustrine Sedimentation in the Dryden Area Northwestern Ontario, M.Sc., thesis, University of Manitoba, Winnipeg, Manitoba, 230p.

Zoltai, S.C. 1963. Glacial Features of the Canadian Lakehead Area. Canadian Geographer, VII (3), p.101-115.

Zoltai, S.C. 1965. Glacial Features of the Quetico-Nipigon Area, Ontario. Canadian Journal Earth Sciences, v.2, p.247-269.

Zoltai, S.C. 1966. Thunder Bay: Surficial Geology, Map S265 Thunder Bay. Ontario Department of Lands and Forests.

Zoltai, S.C. 1965. Glacial History of Part of Northwestern Ontario. Proc. Geol. Assoc. of Can. 13, p.61-83.

MAP REFERENCES

Department of Energy, Mines and Resources 1968. Coldwell Sheet 42D/14, Topographic Map Series, Edition 1, Scale 1:50,000.

Ontario Ministry of Natural Resources. 2000. Sheet 20-16-4600 54100. Ontario Ministry of Natural Resources, Toronto, Ontario, Scale 1:20,000.

Ontario Ministry of Natural Resources. 2000. Sheet 20-16-4600 54000. Ontario Ministry of Natural Resources, Toronto, Ontario, Scale 1:20,000.

Ontario Ministry of Natural Resources. 2000. Sheet 20-16-4700 54100. Ontario Ministry of Natural Resources, Toronto, Ontario, Scale 1:20,000.

Ontario Ministry of Natural Resources. 2000. Sheet 20-16-4700 54000. Ontario Ministry of Natural Resources, Toronto, Ontario, Scale 1:20,000.

AIR PHOTOS

Ontario Ministry of Natural Resources (Scale 1:20,000)

1988 - 4828-31-73 to 74
1988 - 4829 -31-156 to 157

Ontario Ministry of Natural Resources (Scale 1:30,000)

1983 (B83)-50-222-16-49-54

Appendix A

Table 1 Policy Report – Ruby Lake Provincial Park

Activity	Permitted	Guidelines
Commercial Activities		
Aggregate Extraction:	No	Refer to Section 8.1.1 for more information.
Bait Fishing (commercial):		
Existing:	Yes	Refer to Section 8.1.6 for more information.
New:	No	
Commercial Fishing:		
Existing:	No	Activity does not occur within inland lakes in the park. Refer to Section 8.1.6 for more information.
New:	No	
Commercial Fur Harvesting:		
Existing:	Yes	
New:	No	
Commercial Hydro Development:	No	New commercial hydro development is not permitted. Please see Section 8.1.2 for more information.
Commercial Timber Harvest:	No	Commercial timber harvesting is not permitted. Please see Section 8.1.3 for more information.
Commercial Tourism (e.g. outfitting services, outpost camps, resorts/lodges):		
Existing:	No	Activity does not presently occur. Refer to Section 9.3 for more information.
New:	No	
Energy Transmission and Communications Corridors (new):	No	These facilities should avoid park lands whenever possible. Refer to Section 10.4 for more information.
Mineral Exploration and Development:	No	
Wild Rice Harvesting:		
Existing:	No	Activity does not presently occur.
New:	No	
Land and Resource Management Activities		
Crown Land Disposition:		
Private Use:	No	Land disposition for the private use of individuals is not permitted. Land disposition or commercial use is not permitted.
Commercial Use:	No	
Fire Suppression:	Maybe	In the developed areas of the park, fires will be managed to protect park visitors, to minimize the loss or damage to park property and infrastructure, and to prevent socio-economic disruption to adjacent landowners and communities. All fires that threaten park visitor safety or park infrastructure will receive an immediate response and sustained action until extinguished. The use of any Suppression Action requires the approval of a Fire Assessment Report (FAR). Refer to Section 8.1.4 for more information.
Fish Habitat Management:	Yes	Refer to Section 8.1.6 for more information.
Fish Stocking:		
Native Species:	Yes	Permitted in natural environment zones. Refer to Section 8.1.6 for more information.
Non-native Species:	No	
Insect/disease Suppression:	Yes	Refer to Section 8.1.3 for more information.
Inventory/Monitoring:	Yes	Refer to Section 9.5 for more information.
Prescribed Burning:	Maybe	Prescribed burning may be used to meet ecosystem management objectives. Refer to Section 8.1.4 for more information.
Roads (non-park use):		
Existing:	Yes	Where existing access roads are essential to continued access to in-holdings (i.e. Ruby Lake Marble) within the park boundary and alternative road access does not exist, existing roads will continue to be available for access. Continued use includes maintenance.
New:	No	

Table 2 Policy Report – Ruby Lake Provincial Park continued

Activity	Permitted	Guidelines
Vegetation Management:	Yes	Refer to Section 8.1.3 for more information.
Water Control Structure:		
Existing:	No	
New:	No	
Wildlife Population Management:	Yes	Refer to Section 8.1.5 for more information
Personal use permits for wood harvesting	No	
Science, Education and Heritage Appreciation		
Demonstration Areas:	No	
Historical Appreciation - self guided:	Yes	
Nature Appreciation – self guided:	Yes	
Photography and Painting:	Yes	
Research:	Yes	Subject to authorization by Ontario Parks. Refer to Section 9.5.
Wildlife Viewing:	Yes	
Recreation Activities and Facilities		
Aircraft Landing (water):	No	Refer to Section 9.2.1 for more information
All Terrain Vehicle Use:		
On Trails:	Yes	Permitted on existing logging tote roads in natural environment zone 2 (NE2) during hunting season only.
Off Trails:	No	
Camping:	No	Refer to Sections 9.2.1 for more information.
Horseback Riding (trail):	No	
Hunting:	Yes	Permitted only within natural environment 2 zone (NE2). Refer to Sections 7.2, and 8.1.5.
Mountain Bike Use:	No	Refer to Section 9.2.2 for more information
Motor Boat Use:		
Private:	No	Refer to Section 9.2.4 for more information
Commercial:	No	
Non-motorized Recreation Travel (canoeing, kayaking, hiking, cross-country skiing, snowshoeing):	Yes	Refer to Section 9.2.2 for more information.
Private Recreation Camps (Hunt Camps):		
Existing:	No	
New:	No	
Rock Climbing:	No	Refer to Sections 7.1 and 9.2.2 for more information
Sailing and Sailboarding:	No	Activity does not presently occur.
Scuba and Skin Diving:	No	Activity does not presently occur.
Snowmobiling:		
On Trails:	Yes	Snowmobile use is restricted to existing logging road corridors in the NE2 zone only during hunting season.
Off Trails:	No	
Sport Fishing:	Yes	Consult the Ontario Recreational Fishing Regulations Summary for specific local details.
Trail Development:	Yes	Refer to 10.3 and 9.2.2 for more information.
Can and bottle restrictions	No	
Party size restrictions and access quotas	No	
Note: The policies outlined in this table do not supersede any Aboriginal or Treaty rights.		

Appendix A — Table 2 Policy Report – Ruby Lake Forest Reserve

Activity	Permitted	Guidelines
Commercial Activities		
Aggregate Extraction:	Yes	Will not be permitted, except where: -There is an existing aggregate permit; -Aggregate is required in support of mineral exploration mining within the Forest Reserve and there are no feasible sources outside the reserve; or -An aggregate permit is required under the Aggregate Resources Act for the production of industrial minerals and building stone.
Bait Fishing (commercial):		
Existing:	No	There is no opportunity in this forest reserve.
New:	No	
Commercial Fishing:		
Existing:	No	There is no opportunity in this forest reserve.
New:	No	
Commercial Fur Harvesting:		
Existing:	Yes	Existing use permitted to continue, unless there are significant demonstrated conflicts.
New:	Maybe	New operations can be considered, subject to a "test of compatibility".
Commercial Hydro Development:	No	New commercial hydro development is not permitted.
Commercial Timber Harvest:	No	Commercial timber harvesting is not permitted.
Commercial Tourism (e.g. outfitting services, outpost camps, resorts/lodges):		
Existing:	No	There is no development in this forest reserve. New development is permitted, provided it is consistent with the values being protected.
New:	Maybe	
Energy Transmission and Communications Corridors (new):	No	These facilities should avoid forest reserves whenever possible. Refer to Section
Mineral Exploration and Development:	No	Mineral exploration, mining and related access will ***be*** permitted.
Peat Extraction	No	
Wild Rice Harvesting:		
Existing:	No	There is no opportunity in this forest reserve.
New:	No	
Land and Resource Management Activities		
Crown Land Disposition:		
Private Use:	No	No land disposition for the private use of individuals is permitted. Sale of lands is not permitted. Renewals of existing leases or land use permits are permitted; requests for transfer of tenure will be considered. New leases or land use permits permitted for approved activities.
Commercial Use:	Maybe	
CLD Agriculture	No	
CLD Cottaging	No	
CLD Rural Residential	No	
CLD Urban Development	No	
Fire Suppression:	Yes	Natural and human caused fires will be suppressed.
Roads Development and Maintenance:		
Existing:	Yes	Existing roads can continue to be maintained, including roads through Ruby Lake Provincial Park that access the quarry. New roads for resource extraction will not be permitted, with the exception of necessary access for mineral exploration and development, aggregate operations and other commitments which will be permitted with appropriate consideration for the protection of forest reserve values.
New:	No	

Table 3 Policy Report – Ruby Lake Forest Reserve continued

Activity	Permitted	Guidelines
Recreation Activities and Facilities		
Crown Land Recreation:	yes	Provided it is consistent with the values being protected.
Hunting	Yes	
Road Use (public)		
Existing:	Yes	Public travel on the road leading to the quarry is not available. Public travel on the portion of the road from highway 17 to the top of the eastern palisades is available.
New:	No	
Sport Fishing:	No	
Note: The policies outlined in this table do not supersede any Aboriginal or Treaty rights.		

Appendix B Social and Economic Analysis Notes and Definitions

Notes on Total Effects

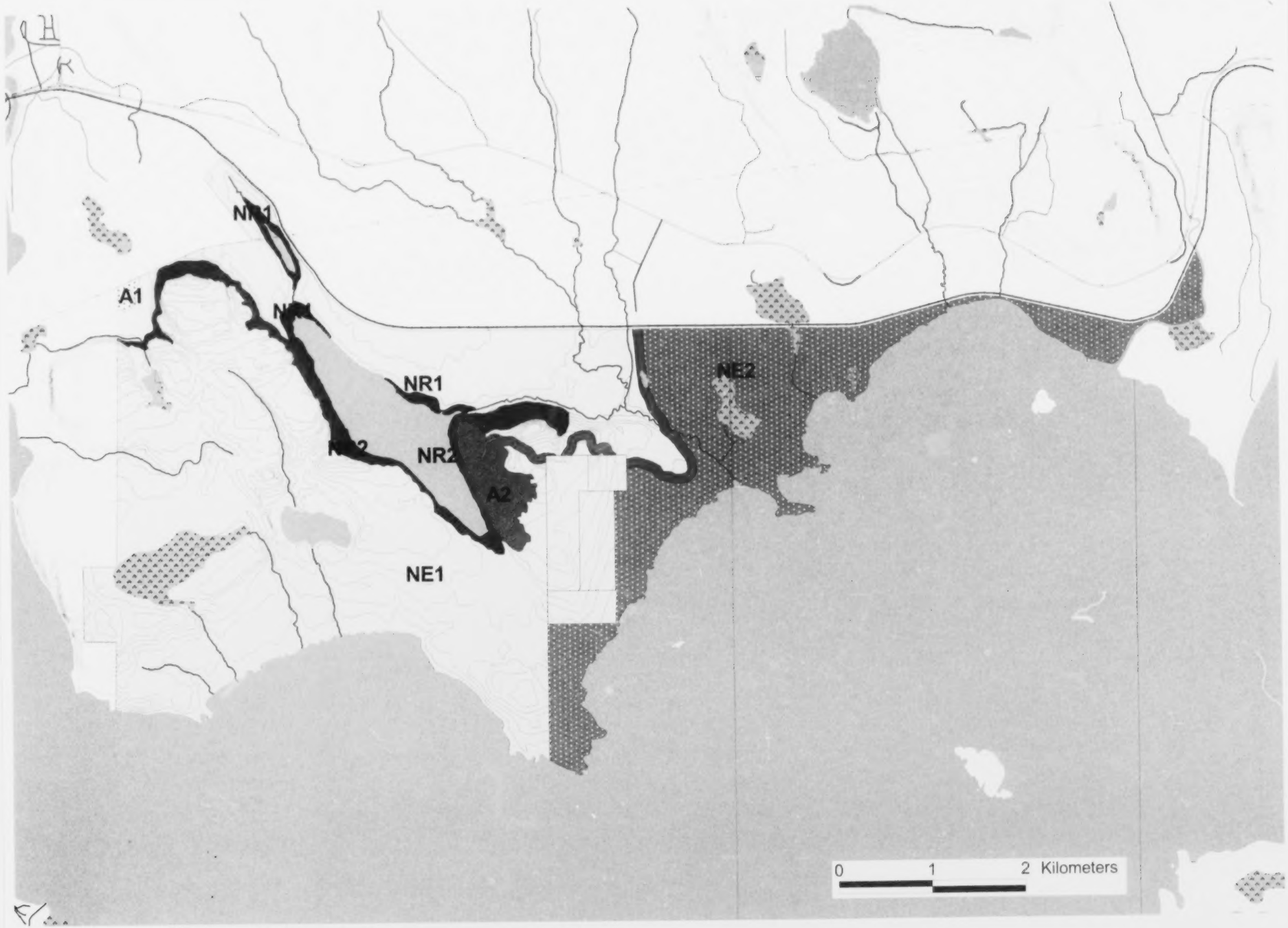
As measured by economic impact, expenditures have different rounds or levels of effect on the economy. An example, using the value added indicator, of the levels of effect for the park management expenditure is provided below:

For example, from an initial park management expenditure of $376,520 the direct effect is calculated at $340,003 and the indirect and induced effects are calculated at $301,078. The direct + indirect + induced effects of the park management expenditure total $641,081 value added. The same calculation would be done for capital and visitor expenditures.

Value Added: "This is a measure of net output. It avoids double counting of products sold during the accounting period by including only final goods. For instance, only chairs are included, whereas the wood that goes into making them does not appear separately. It is equal to income (GPI) [Gross Provincial Income]. It may be calculated by adding wages, interest, rent and profits. Alternatively, it is equal to revenues minus the total cost of purchased inputs." (OMNR, Social and Economic Model, Technical Manual, 1995, p. 35)

Gross Output (Gross Sales): "This is the total value of goods and services sold by businesses during the year in sustaining the projects normal year operations. Direct sales include all the value of goods and services bought for on-site operations. They include only a portion of the revenues of the project - excluded are taxes, depreciation, wages and salaries, and net profits. Total sales include all the turnover of goods and services needed to sustain the project on-site and off-site." (OMNR, Social and Economic Model, Technical Manual, 1995, p. 35)

Wages and Salaries: "This is the wages and salaries component of income." (OMNR, Social and Economic Model, Technical Manual, 1995, p. 35).



ONTARIO PARKS

Figure 3
Proposed Zoning

Location Map

Legend

- Primary Roads
- Secondary Roads
- Tertiary Roads
- Transmission Line
- Railway
- Trails
- River
- Lakes
- Contours in 10m Intervals
- Unpatented Mining Claim
- Forest Reserve (F2239)

Proposed Zoning Boundaries

- Access Zone 1 - Western Access
- Access Zone 2 - Eastern Pallisades Access
- Natural Environment Zone 1 - Doghead Mountain
- Natural Environment Zone 2 - East Side
- Natural Reserve Zone 1 - Ruby and Ivan Lake Wetlands
- Natural Reserve Zone 2 - Cliff and Talus Slopes

Notes:

Data Sources:
MNDM Ownership Data
NPVS

Projection:
Universal Transverse Mercator
Zone 16
North American Datum 1983

Published in February 2004
Copyright 2004
Queen's Printer for Ontario

Disclaimer:
Do not rely on this map as being a precise indication of routes, locations of features, nor as a guide to navigation

Ontario

NR1
A1
NR1
NE2
NR1
NR2
NR2
A2
NE1

ONTARIO
PARKS

Figure 4
Proposed Development

Location Map

Legend

- A1 - Proposed Parking Lot
- A2 - Proposed viewing Pods, Parking Lot and Day Use Area
- Primary Roads
- Secondary Roads
- Tertiary Roads
- Transmission Line
- Railway
- Trails
- River
- Lakes
- Contours in 10m Intervals
- Unpatented Mining Claim/ Forest Reserve (F2239)

Proposed Zoning Boundaries

- Access Zone 1 -
- Western Access
- Access Zone 2 -
- Eastern Pallisades Access
- Natural Environment Zone 1 -
- Dogheat Mountain
- Natural Environment Zone 2 -
- East Side
- Natural Reserve Zone 1 -
- Ruby and Ivan Lake Wetlands
- Natural Reserve Zone 2 -
- Cliff and Talus Slopes

Notes:

Data Sources:
MNDM Claim Map Data
NRVIS

Projection:
Universal Transverse Mercator
Zone 16
North American Datum 1983

Published in February 2004
copyright 2004
Queen's Printer for Ontario

Disclaimer:
Do not rely on this map as being a precise indicator of routes, locations of features, nor as a guide to navigation

Ontario

Fire Hill Lake
Hwy 17
NR1
Ivan Lake
A1
Doghead Mtn
CORRIGAL TWP
Proposed Road Upgrade
NR2
NR1
Ruby Lake
NR2
A2
NE1
McLennan Lake
Proposed Loop Development
LAKE SUPERIOR
0 1 2 Kilometers

ONTARIO PARKS

Figure 4
Proposed Development

Location Map

Legend

- A1 - Proposed Parking Lot
- A2 - Proposed Viewing Point, Parking Lot and Day Use Area
- Primary Roads
- Secondary Roads
- Tertiary Roads
- Highway Junction
- Railway
- Trails
- Water
- Lakes
- Contours (10m interval)
- Unpatented Mining Claim
- Forest Reserve 7 (2)
- Provincial Park Boundaries
- Provincial Zoning Boundaries
- Access Zone
- Nature Environment Zone
- Recreation Zone
- Wilderness Zone
- Crown Reserve Zone
- Crown Land Parcels

Notes

0 1 2 Kilometers

Ontario

51852
(0.5 k P.R., 01 04 04)
ISBN 0-7794-5903-2

Printed on
Recycled Paper
Imprimé sur du
papier recyclé